MOTION FILED
MAY 26 1981

No. 80-1882

IN THE

Supreme Court of the United States

OCTOBER TERM, 1980

CHARLES CHAPMAN, et al.,

Petitioners,

vs.

THE DOW CHEMICAL COMPANY, et al.,

Respondents.

MOTION FOR LEAVE TO FILE AND BRIEF IN SUPPORT OF PETITION FOR A WRIT OF CERTIORARI OF THE RYAN FAMILY ON BEHALF OF ALL THE PLAINTIFF VETERANS AND THEIR FAMILIES FROM NEW YORK, ALABAMA, ALASKA, ARKANSAS, COLORADO, GEORGIA, IDAHO, MAINE, MISSISSIPPI, MONTANA, NEBRASKA, NEVADA, NORTH CAROLINA, NORTH DAKOTA, SOUTH DAKOTA, RHODE ISLAND, UTAH, VIRGINIA, WEST VIRGINIA, WISCONSIN, AMICI CURIAE

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MOTION FOR LEAVE TO FILE BRIEF AMICI CURIAE

The plaintiff veteran Michael Ryan and Maureen Ryan, his wife, individually and on behalf of their infant daughter, Kerry Ryan, and together on behalf of all the other veterans and their families so unfortunate as to be similarly afflicted as a result of the decision by the Court of Appeals for the Second Circuit reported at 635 F.2d 987 (2d Cir. 1980), hereby move pursuant to Rule 36.1 of this Court's Rules for leave to file the attached brief *amici curiae* in support of the Petition for Cetiorari.

The plaintiffs Ryan are representatives of all those plaintiffs living is states where they would be barred from litigating their claims against the defendant war contractors on the merits by operation of statutes of limitation or interpretations of such statutes see, Appendix A.

This brief is also submitted on behalf of *Agent Orange Victims International*, a membership association of Vietnam combat veterans and their families, including the plaintiffs Ryan who have been involved in this litigation since it began following the death of Paul Reutershan on December 14, 1978. Paul Reutershan was the plaintiff in the case first filed against the corporate defendant war contractors on January 8, 1979 in the United States District Court for the Southern District of New York.

We feel a duty to separately present the plight of the Agent Orange victims from Alabama, Alaska, Arkansas, Carolina, Colorado, Georgia, Maine, Mississippi, Montana, Nebraska, Nevada, New York, North Carolina, North Dakota, Rhode Island, South Dakota, Utah, Virginia, Virginia, and Wisconsin to this Court in support of the petition for a writ of certiorari because the national interest in the uniform resolution of all the claims of all the veterans according to a single uniform rule of federal common law mandates acceptance of federal question jurisdiction under 28 USC § 1331.

Respectfully submitted,

VICTOR JOHN YANNACONE, JR.
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AARON D. TWERSKI
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QUESTION PRESENTED

Does an action brought by the plaintiff veterans and their families against the several stateless, multi-national, conglomerate, corporate war contractor defendants to redress the poisoning of approximately 2.4 million American Servicemen[1] who served as combat soldiers during the war in Southeast Asia raise "federal questions", the resolution of which is properly before the federal courts under 28 U.S.C. § 1331 for determination under a uniform rule of federal common law?

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1 There are additional suits before the District Court brought by Australian and other SEATO soldiers and their families. See 506 F.Supp. 756 (E.D.N.Y. 1980).

PARTIES

More than 100 actions involving over 5,000 individual veterans, their wives, widows and children, and in certain cases their parents, have been filed in federal district courts throughout the United States and appear before this Court consolidated under docket MDL 381 pursuant to 28 U.S.C. § 1407. The lead case, under MDL procedures, is:

> "CHARLES CHAPMAN, individually and on behalf of all those so unfortunate as to have been and now to be similarly situated at risk from the toxic effects of phenoxy herbicides such as the 2, 4, 5 trichloro phenoxy aliphatics manufactured, formulated, advertised, promoted, marketed and sold, individually and collectively by the corporate defendants herein, although known to be contaminated with toxic synthetic organic chemical 2, 3, 7, 8-tetrachloro dibenzo p.-dioxin ("TCDD" of "Dioxin") and KUNIKO CHAPMAN, individually and on behalf of all those so unfortunate as to have been similarly affected as a result of the toxic effects of phenoxy herbicides such as the 2, 4, 5 trichloro phenoxy aliphatics manufactured, formulated, advertised, promoted, marketed and sold, individually and collectively by the corporate defendants herein, although known to be contaminated with toxic synthetic organic chemical 2, 3, 7, 8-tetrachloro dibenzo p.-dioxin ("TCDD" or "Dioxin"),
>
> Plaintiffs,
>
> vs.
>
> THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, NORTHWEST INDUSTRIES, INC., DIAMOND SHAMROCK CORPORATION, MONSANTO COMPANY, and NORTH AMERICA PHILIPS CORP.,
>
> Defendants,
>
> and
>
> THE UNITED STATES OF AMERICA, VETERANS ADMINISTRATION, DEPARTMENT OF DEFENSE, SOCIAL SECURITY

ADMINISTRATION, DEPARTMENT OF HEALTH, EDUCATION AND WELFARE,

as their several interests may appear."

One of the earliest cases filed in the United States District Court for the Eastern District of New York at Westbury involves plaintiffs from New York who are affected adversely by the decision of the Court of Appeals for the Second Circuit (635 F.2d 987) from which a writ of certiorari is sought. That case is entitled:

UNITED STATES DISTRICT COURT
for the
EASTERN DISTRICT of NEW YORK

MICHAEL RYAN,
individually and on behalf of all those so unfortunate as to have been and now to be similarly situated at risk from the toxic effects of phenoxy herbicides such as the 2,4,5-trichlorophenoxy aliphatics manufactured, formulated, advertised, promoted, marketed and sold, individually and collectively, by the corporate defendants herein although known to be contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin");

—and—

MAUREEN RYAN, wife of the veteran MICHAEL RYAN, individually and on behalf of all those so unfortunate as to have been similarly affected as a result of the toxic effects of phenoxy herbicides such as the 2,4,5-trichlorophenoxy aliphatics manufactured, formulated, advertised, promoted, marketed and sold, individually and collectively, by the corporate defendants herein although known to be contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin"),

—and—

KERRY RYAN,

the infant daughter of MICHAEL RYAN and MAUREEN RYAN, individually and on behalf of all those so unfortunate as to have been similarly afflicted as a result of the toxic effects of phenoxy herbicides such as the 2,4,5-trichlorophenoxy aliphatics manufactured, formulated, advertised, promoted, marketed and sold, individually and collectively, by the corporate defendants herein although known to be contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin"),

—and—

MICHAEL RYAN and MAUREEN RYAN, his wife, the parents of the infant plaintiff, each individually and on behalf of all those other parents so unfortunate as to have been and now to be similarly afflicted and situated at risk, not only during this generation but during those generations yet to come, from the toxic effects of phenoxy herbicides such as the 2,4,5-trichlorophenoxy aliphatics manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants herein, individually and collectively although known to be contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin"),

Plaintiffs,

—against—

THE DOW CHEMICAL COMPANY,
HERCULES INCORPORATED,
NORTHWEST INDUSTRIES, INC.,
DIAMOND SHAMROCK CORPORATION,
MONSANTO CO., and
NORTH AMERICAN PHILIPS CORP.,

Defendants,

—and—

THE UNITED STATES OF AMERICA
VETERANS ADMINISTRATION, Department of Defense
SOCIAL SECURITY ADMINISTRATION,
Department of Health, Education and Welfare,
as their several interests may appear.

After the arguments before the Court of Appeals and as a result of statements by the government and defendant THE DOW CHEMICAL COMPANY, a Fourth Amended Complaint deemed to be the common or generic complaint for all the "Agent Orange" cases was filed under the title:

Multi District Litigation
Docket No. MDL 381
UNITED STATES DISTRICT COURT
for the
EASTERN DISTRICT of NEW YORK

In the matter of the claims for damages attributable to the phenoxy aliphatic herbicides contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") manufactured, formulated, advertised, marketed, promoted and sold by the corporate defendants

by

1. Certain named veterans, individually and on behalf of a number of veterans all those so unfortunate as to have been and now to be similarly affected and situated at risk from the toxic effects of phenoxy herbicides manufactured, formulated, advertised, marketed, promoted and sold, individually and collectively, by the corporate defendants although known by them to be contaminated with toxic synthetic organic chemicals; (Classes designated 1, and 2); and

2. Certain named wives of veterans, individually and on behalf of all those wives of veterans so unfortunate as to have been similarly affected and situated at risk as a result of the

toxic effects of phenoxy herbicides manufactured, formulated, advertised, promoted, marketed and sold, individually and collectively, by the corporate defendants although known by them to be contaminated with toxic synthetic organic chemicals (Classes designated 6, 7, and 12); and

3. Certain named veterans now deceased, by their several legal representatives, individually and on behalf of all those so unfortunate as to have been similarly affected by the toxic effects of phenoxy herbicides manufactured, formulated, advertised, promoted, marketed and sold, individually and collectively, by the corporate defendants although known by them to be contaminated with toxic synthetic organic chemicals (Class designated 5); and

4. Certain named widows of veterans now deceased, individually and on behalf of all those so unfortunate as to have been similarly widowed as a result of the toxic effects of phenoxy herbicides manufactured, formulated, advertised, promoted, marketed and sold, individually and collectively, by the corporate defendants although known by them to be contaminated with toxic synthetic organic chemicals (Classes designated 6, 7, and 8); and

5. Certain named parents of veterans now deceased, individually and on behalf of all those so unfortunate as to have similarly lost their sons as a result of the toxic effects of phenoxy herbicides manufactured, formulated, advertised, promoted, marketed and sold, individually and collectively, by the corporate defendants although known by them to be contaminated with toxic synthetic organic chemicals (Class designated 9); and

6. Certain named children, individually and on behalf of all those children so unfortunate as to have been similarly affected and now at risk as a result of the toxic effects of phenoxy herbicides manufactured, formulated, advertised, promoted, marketed and sold, individually and collectively, by the corporate defendants although known by them to be contaminated with toxic synthetic organic chemicals (Classes designated 13, 14, and 15); and

7. Certain named parents of children affected and now at risk as a result of the toxic effects of phenoxy herbicides manufactured, formulated, advertised, promoted, marketed and sold, individually and collectively, by the corporate defendants although known by them to be contaminated with toxic synthetic organic chemicals, each individually and on behalf of all those other parents and their children so unfortunate as to have been and now to be similarly situated at risk, not only during this generation but during those generations yet to come, from the toxic effects of such phenoxy herbicides manufactured, formulated, advertised, promoted, marketed and sold by said corporate defendants (Classes designated 10, 11, 12),

Plaintiffs,

—against—

THE DOW CHEMICAL COMPANY, MONSANTO CO., HERCULES INCORPORATED, THOMPSON-HAYWARD CHEMICAL COMPANY, DIAMOND SHAMROCK CORPORATION, UNIROYAL, INC., AGRISECT, INC., THOMPSON CHEMICALS, and HOFFMAN-TAFT, INC., a subsidiary of SYNTEX CORP., together with HOOKER CHEMICAL COMPANY, a subsidiary of OCCIDENTAL PETROLEUM CORPORATION,

Defendants.

Additional defendants were deemed to have moved *nunc pro tunc* against the complaint as had the original defendants, and all defenses raised by any individual corporate defendant were deemed raised by all other defendants.

TABLE OF CONTENTS

PAGE

Motion for Leave to File Brief Amici Curiae..... i

Question Presented..... iii

Parties..... iv

Table of Cases and Authorities..... xi

BRIEF OF AMICI CURIAE

Interest of Amici Curiae 1

Opinions Below..... 2

Jurisdiction 2

Statement of the Case 2

Reason for Granting the Writ..... 3

Argument..... 5

Conclusion..... 11

Appendix A..... 1a

Appendix B 1b

Appendix C 1c

TABLE OF CASES AND AUTHORITIES

Cases	PAGE
In re Agent Orange Product Liability Litigation, 506 F. Supp. 756 (E.D.N.Y. 1980)	iii
In re Agent Orange Product Liability Litigation, 506 F. Supp. 762 (E.D.N.Y. 1980)	2
City of Milwaukee, et al. v. *Illinois et al.*, ____ U.S. ____ (decided April 28, 1981; No. 79—408)	9
Feres v. *United States*, 340 U.S. 135 (1950)	6-8
Illinois v. *Milwaukee*, 406 U.S. 91 (1972)	9
Miree v. *DeKalb County*, 433 U.S. 25 (1977)	6
Stencel Aero Engineering Corp. v. *United States*, 431 U.S. 666 (1977)	6-8
United States v. *Kimbell Foods, Inc.*, 440 U.S. 715 (1979)	9
United States v. *Little Lake Misere Land Co.*, 412 U.S. 580 (1973)	9
United States v. *Standard Oil Co.*, 332 U.S. 301 (1947)	6-8
Wallis v. *Pan American Petroleum Corp.*, 384 U.S. 63 (1966)	6
Thornton v. *Roosevelt Hospital* 47 NY 2d 780, 391 NE2d 1002, 417 NYS 2d 1002 (1979)	10
Victorson v. *Bock Laundry Machine Co.* 37 NY 2d 395, 335 NE2d 275, 373 NYS 2d 39 (1975)	10
United States Constitution:	
Article 1, § 8	8
Statutes and Rules:	
28 U.S.C. § 1331	3-4-6
28 U.S.C. § 1407	iv

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INTEREST OF AMICI CURIAE

The interest of the *amici curiae* appears from the foregoing motion.

OPINIONS BELOW

The opinion of the Second Circuit from which a writ of certiorari is sought is reported at 635 F.2d 987 (2d Cir. 1980). That decision by a divided court, Chief Judge Feinberg dissenting, reversed a decision by the District Court, George C. Pratt, J., reported at 506 F. Supp. 737 (E.D.N.Y. 1979).*

JURISDICTION

The decision and order sought to be reviewed was entered by the clerk of the Court of Appeals on November 24, 1980, without time notation. A Petition for Reheading *en banc* was denied by order entered January 28, 1981. The Petition for Certiorari was filed with this Court on April 28, 1981, and no extension of time for filing this Brief has been sought.

STATEMENT OF THE CASE

This litigation arises out of the use of phenoxy herbicides, including a certain "Agent Orange," which were manufactured, formulated, advertised, marketed, promoted and sold by the multinational, conglomerate, corporate defendant war contractors. The plaintiffs are the class of all those United States veterans who served in Southeast Asia during the "Viet Nam War" and were exposed to chemical defoliants such as the "dioxin" contaminated phenoxy herbicides, together with their wives and children, and, in certain unfortunate cases, their widows, orphans, and parents. See, Appendix B.

The phenoxy herbicides supplied by the defendant War Contractor were admittedly contaminated with polychlorinated

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* Subsequent to the decision of the Court of Appeals, the District Court gave limited class certification to those actions which, because of diversity jurisdiction or other reasons, were not dismissed as a result of the action of the Court of Appeals. *In Re Agent Orange Product Liability Litigation*, 506 F. Supp. 762, 787 (E.D.N.Y. 1980). See, Appendix A.

dibenzo *p*-dio (PCDDs), including 2,3,7,8-tetracholorodibenzo *p*-dioxin (TCDD "Dioxin"), a compound conceded to be one of the most toxic substances ever developed by man. See, Appendix C. As a result of exposure to there contaminated herbicides, individual veterans have suffered genetic and somatic damage, including neoplastic disease (cancer). Children of the plaintiff veterans have been born with catastrophic polygenetic birth defects, while others have died *in utero*, been stillborn, or succembed as infants.

In addition to compensatory, general and punitive damages the plaintiff veterans demand declaratory judgment and equitable relief including the creation of a trust fund for the benefit of the afflicted victims out of the current earnings of the corporate defendants rather than out of the public treasury.

Such a trust fund is necessary to assure restitution to, among others, the American taxpayers for benefits paid those victims through the United States Department of Health and Welfare, the social services agencies of the several states and the Veterans Administration. The trust fund may also provide the means for the corporate defendants to avoid economic disaster should the plaintiff veterans and their families ever recover damages consistent with the magnitude of their injuries.

Jurisdiction is invoked under 28 U.S.C. § 1331 ("federal question"), because the claims of the more than two million soldier-veterans who fought shoulder-to-shoulder for the United States of America in Southeast Asia by command of the Federal Government should not be subject to the vagaries of disparate state laws and the inevitable inconsistent results which would allow recovery to some and deny it to others solely because of the accident of their residence.

REASONS FOR GRANTING THE WRIT

By order of the United States District Court for the Eastern District of New York the class of all the plaintiff veterans and their families has been certified. Jurisdiction must, therefore, be based on the existence of a "federal question" within the

meaning of 28 U.S.C. § 1331 in order to assure all the soldier veterans equal access to the Federal Courts regardless of their state of residence or domicile; permit determination of all the "Agent Orange" cases under a uniform Federal common law rule; and avoid inconsistent application of the disparate and conflicting products liability laws of fifty individual states and perhaps several foreign countries.[1]

The question presented to the American judicial system is whether the claims of soldiers serving in Southeast Asia under the flag of the United States of America, who have been injured by a dangerous product of defective design manufactured, formulated, advertised, marketed, promoted and sold by the corporate defendant war contractors without adequate warning to the United States Department of Defense (DOD), will be heard in the federal courts as a "federal question" and determined under a uniform rule of Federal common law or whether the conflicting products liability laws of fifty individual states will be permitted to destroy the spirit of national unity which has characterized military service in this country since the Constitution was ratified.

Unless the writ sought is granted and the mandate of the Court of Appeals for the Second Circuit reversed, soldier veterans in at least twenty states[2] will be precluded from ever litigating their claims against the corporate defendant war contractor chemical companies by local statutes limiting the time within which actions for personal injuries can be brought.

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1 At the direction of Judge George C. Pratt, United States District Court Judge, E.D.N.Y., Counsel for the corporate defendants submitted to the Court a two-volume summary of each individual state's statutes of limitations on negligence, product liability, and wrongful death. Counsel for Australian veterans, William T. MacMillan of Brisbane, Queensland, and Ross Lonnie of Perth, West Australia, submitted similar information for the six Australian states. Appendix, 61a.

2 Maine, Rhode Island, New York, Virginia, West Virginia, North Carolina, Georgia, Alabama, Mississippi, Arkansas, Wisconsin, Nebraska, South Dakota, North Dakota, Montana, Idaho, Colorado, Utah, Nevada, Alaska.

ARGUMENT

More important than the weight of authority favoring "Federal question" jurisdiction in the "Agent Orange" cases are the compelling facts which supply the backdrop for this landmark litigation. "Agent Orange" is itself History.[3] Although the legal issues may seem complex, the operative facts are not.

The plaintiff veterans claim that they and their children have suffered serious personal injuries as a result of exposure to "Agent Orange," and even the corporate defendants concede that dioxin is one of the most toxic organic chemicals ever synthesized by the chemical industry. The plaintiff veterans volunteered or were drafted by the federal government of the United States of America to fight in an unpopular war thousands of miles from home in Southeast Asia. They went not at the behest of New York, Oregon, Illinois, Alabama or California, but at the urging of the Federal Government. While in Viet Nam, they were exposed to the contaminated defoliants manufactured, formulated, advertised, marketed, promoted and sold by the corporate defendant war contractors, none of which made any effort to alert the United States Department of Defense (DOD) during the Viet Nam war and the Veterans Administration after the war about the presence of 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "Dioxin") as a contaminant in "Agent Orange," much less warn the government or the veterans about the dangers associated with dioxin exposure.[4]

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3 "Agent Orange" is the generic designation for the phenoxy herbicides used as defoliants to clear the jungles in Southeast Asia. See Appendix B. Bruce F. Meyers, "Soldiers of Orange: the Administrative, Diplomatic, Legislative, and Litagatory Impact of Herbicide Agent Orange in South Vietnam," 8 *Boston College Environmental Affairs Law Review*, 159, 160-178 (1979).

4 See Appendix C, Plaintiffs' Amended Verified Complaint dated June 20, 1979 MDL 381 document no. 0014, pp. 35-46, ¶¶ 79-117.

The common element in all the "Agent Orange" cases are the sales to the United States Department of Defense (DOD) of a contaminated herbicide to which all the troops who served in Viet Nam were exposed. If, because of failure to warn and design errors, "Agent Orange" was a defective product, it was defective as to all the allied soldiers who served in Viet Nam regardless of their place of residence or domicile. The plaintiff veterans and their families have offered to prove that none of the corporate defendant war contractors made any substantial efforts to reduce or eliminate the dioxin contamination of the phenoxy herbicides they manufactured and marketed. Thus, the Federal Government was sold a formulation which was defective in design and lacked adequate warning of the dangers associated with its use.

Judges Kearse and Van Graafeiland in the Court of Appeals majority and Chief Judge Feinberg in dissent all recognized the massive Federal interests at stake in this litigation. The relationship between the Government and its servicemen is "distinctively federal in character," and as such confers rights and duties on the United States that are uniquely Federal in nature. *United States* v. *Standard Oil Co.*, 332 U.S. 301, 305 (1947). The Second Circuit noted that "the government has an interest in the welfare of its veterans who have given of themselves in the most fundamental way possible in the national interest."[5] Also distinctively Federal in character is the relationship between the Government and its war contractors. *Stencel Aero Engineering Corp.* v. *United States*, 431 U.S. 666, 672 (1977).

That such significant Federal interests exist in this suit is reason enough to confer "federal question" jurisdiction under 28 U.S.C. 1331 upon the federal courts and warrant the application of a uniform rule of Federal common law. *Miree* v. *DeKalb County*, 433 U.S. 25 (1977); *Wallis* v. *Pan American Petroleum Corp.*, 384 U.S. 63 (1966).

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5 In Re: Agent Orange Product Liability Litigation, 653 F.2d 990; Petition for Certiorari, *Charles Chapman et al. v. Dow Chemical Company et al.*, Opinion of the Court of Appeals, November 24, 1980, Appendix, 21a, at 34a.

There are issues in the "Agent Orange" cases which will require the Courts to balance the duties and obligations of the war contractors who sold the contaminated herbicides to the DOD against the rights of the soldiers who were injured as a result of exposure to those dangerous and defective products. The Federal procurement interest must be weighed against the Federal interest in the welfare of American combat soldiers, and the safety of their allies. Can such issues present other than a "federal" question to the Courts? Where but to Federal common law is one to look to strike the proper balance?

Indeed, so compelling are the Federal interests and the need to resolve them in a manner which reflects the unique national character of this case, that if there were no established doctrine of Federal common law, this case would compel that it be fashioned by the Courts. That the federal interests involved are competing mandates that conclusion. Balancing the competing Federal concerns, cannot be left to the conflicting vagaries of the products liability laws of fifty individual states. Yet, if "federal question" jurisdiction does not exist and a uniform Federal common law rule is not applied, that is precisely what will occur. A lawsuit in which all the sovereign people of the United States and their Federal Government have an overwhelming interest, the outcome of which will have a profound effect on our national defense, is about to be decided according to the parochial dictates of each individual state.

Nevertheless, Judges Kearse and Van Graafeiland tell us that soldiers who fought shoulder-to-shoulder for the United States of America in the Southeast Asia Theater of Operations are to be treated unequally according to the local laws of their states of residence or domicile today.

Implicit in the right of the Federal Government to conscript troops for military service is the duty to prevent any third party from interfering with the relationship between the Federal

Government of the United States and its soldiers.[6] If the Federal Government is to draft young men (and perhaps women) to serve in the armed forces, control their conduct and, to a large extent, determine their fate, whether conscript or volunteer, then the federal government must assure these soldiers that the judicial system of the United States will protect them. This constitutional obligation—a basic element of federalsim—is non-delegable and cannot be left to some esoteric "choice of law" lottery conducted by the courts of fifty states.

There should be no doubt that a "federal question" exists in the "Agent Orange" cases sufficient to confer jurisdiction under 28 U.S.C. § 1331. Article I, Section 8 of the Constitution gives Congress the power to establish and maintain armed forces. Necessary and proper to the exercise of such power is the ability to protect servicemen:

> "For, the Federal Government has the exclusive power to establish and define the relationship (between itself and its soldiers) by virtue of its military and other powers, equally clearly it has power in execution of the same function to protect the relationship once formed from harms inflicted by others." *United States* v. *Standard Oil Co.*, 332 U.S. 301, 306 (1947).

Even in the absence of such a clear Constitutional source of authority, the power granted to Federal Courts to hear diversity suits requires the Courts to fashion rules of decision appropriate to the litigation. However, any attempt to give effect to the laws of fifty individual states would treat the plaintiff veterans, in a patently unequal fashion and deny to

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6 *United States v. Standard Oil*, 332 U.S. 301, 306 (1947); in *Feres v. United States*, 340 U.S. 135 (1950), the Supreme Court found a compelling interest in the welfare of the soldiers strong enough to override (without legislation) the clear intention of the Federal Tort Claims Act. Similarly, the Court in *Stencel Aero Engineering Corp. v. United States*, at 666, held that the relationship between the Government and its war contractors was strong enough (without legislation) to override state law considerations of indemnity.

more than 600,000 veterans and their families due process and the equal protection of the laws.[7]

Thus, there are two complementary sources which provide this Court with the "authority" which is a prerequisite for the application of Federal common law.

In the absence of definite Congressional action, Federal common law is the only rational basis upon which to decide a case which deals with the intimate relationships between American soldiers and the Federal Government, and between the Federal Government and its defense contractors. Indeed, this Court has already held that a question involving either relationship is sufficient to displace state law.[8] The "Agent Orange" cases go to the heart of the complex relationships among soldiers, veterans, war contractors, and the federal government.

Any litigation between American soldiers and the war contractors of the federal government must be determined in accordance with some uniform rule of Federal law. Where Congress has not explicitly promulgated such a law, the federal Courts are presented with a uniquely "federal" question and are free to fashion a uniform rule of federal common law. *City of Milwaukee et al.* v. *Illinois* ____ U.S. ____ (decided April 28, 1981; No. 79-408; *Illinois* v. *Milwaukee*, 406 U.S. 91; *U.S.* v. *Standard Oil (supra)*. The federal question presented by the "Agent Orange" cases would be sufficiently compelling were the only institutional relationship that of United States soldiers and the United States Government. However, more than 40,000 troops from the Commonwealth of Australia are also involved. They too have been afflicted with the same cancers and other degenerative diseases as their comrades in arms who wore American uniforms. Australian children have been born

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7 Of the more than 2.4 million American servicemen who served in Southeast Asia during the Vietnam War, more than 600,000 now reside in the 20 states which interpret statutes of limitations in such a way as to bar the veterans claims.

8 *United States v. Kimbell Foods, Inc.*, 440 U.S. 715 (1979); *United States v. Little Lake Misere Land Co.*, 412 U.S. 580, 591, 593-94 (1973).

with the same kinds of catastrophic polygenetic birth defects as the children of the American veterans.

Attempting to utilize state choice of law rules to fashion the decision for the "Agent Orange" cases would be an exercise in futility. Choice of law doctrine today is heavily tied to state interest analysis and requires that Courts attempt to work out a balance of state interests. It does not require the gift of prophecy, however, to foresee that such a venture is doomed to failure. Veterans and their families from each of the fifty states are suing a number of multi-national conglomerate chemical companies, incorporated in certain states (generally for convenience), but with their principal places of business in several other states. No state choice-of-law system can accommodate the diverse interests of all the parties to this litigation.

Affirming the Court of Appeals decision means that even if the absolute liability of the corporate defendant war contractors is clearly established, the veterans from twenty states may be denied the opportunity to litigate their claims because the limitations on personal injury and wrongful death actions in those states act to bar such actions long before the effects of the injury become clinically manifest.[9]

Deciding the "Agent Orange" cases under state law must inevitably lead to an irrational mix of choice of law decisions, favoring some veterans, penalizing others and assuring injustice to all parties.

It may seem easy to shrug a judicial shoulder and say, "lack of uniformity is the price of federalism" but quite another matter to explain that kind of federalism to an "Agent

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9 For example, New York's Civil Practice Laws and Rules, sec. 214(5) states an action to recover damages for a personal injury must be commenced within three years. The Court of Appeals of New York has interpreted this to mean that causes of action for negligence, and strict product liability accrue at the time of exposure to the agent that caused the injury upon which the action is based. Plaintiff's failure to discover the injury is immaterial to the time of accrual. *Thornton v. Roosevelt Hospital*, 47 N.Y.2d 780, 391 N.E.2d 1002, 417 N.Y.S.2d 920 (1979) (negligence); *Victorson v. Bock Laundry Machine Co.*, 37 N.Y.2d 395, 335 N.E.2d 275, 373 N.Y.S.2d 39 (1975) (strict product liability).

Orange" victim like Kerry Ryan who will be denied recovery because she was born in New York, while other more fortunate children will be fairly compensated because they were fortunate enough to be born in California. It will be even more difficult to explain this clear injustice to the Australian fighting men who volunteered to join the Americans in Southeast Asia.

CONCLUSION

The "Agent Orange" cases do not involve a choice between legislative and judicial action, but rather between Federal and state action. "Federal question" is the appropriate basis for jurisdiction and Federal common law must be applied to protect the Federal interests at stake. The spectre of the American obligation under the Southeast Asia Treaty Organization (SEATO) treaty haunts the "Agent Orange" victims. It was once their justification for being in Southeast Asia, and is now their reason for being in the Federal Courts.

It strains credulity to accept the notion that while all agree the "Agent Orange" litigation is solely concerned with federal interests, national security, and interstate and international commerce, there is insufficient "federal" interest to support "federal question" jurisdiction in the Federal Courts. Slamming the Courthouse door in the faces of the veterans from at least 20 states through mindless application of local statutes of limitation is a moral outrage that should not be tolerated under the laws of a land dedicated to equal justice under law.

Respectfully submitted,

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APPENDIX A

UNITED STATES DISTRICT COURT

EASTERN DISTRICT OF NEW YORK

MDL NO. 381 (ALL CASES)

PRETRIAL ORDER NO. 26

IN RE

"AGENT ORANGE"
PRODUCT LIABILITY LITIGATION

TABLE OF CONTENTS

	PAGE
INTRODUCTION	4a
I. SUMMARY OF CLAIMS	5a
II. GOVERNMENT'S MOTION TO DISMISS THIRD PARTY COMPLAINTS	6a
A. FTCA AS A GENERAL WAIVER OF SOVEREIGN IMMUNITY	6a
B. THE *FERES* DOCTRINE	7a
C. THIRD PARTY ACTIONS AGAINST THE GOVERNMENT	11a
D. *FERES/STENCEL* IN THE CONTEXT OF THIS ACTION	11a
E. SHOULD *FERES/STENCEL* APPLY TO THIS ACTION?	13a

PAGE

F. DID PLAINTIFFS' INJURIES ARISE OUT OF OR INCIDENT TO MILITARY SERVICE? 16a

1. General Principles 17a

2. Application of *Feres/Stencel* to Plaintiffs' Claims 19a

(a) Plaintiff Veterans' Claims of Exposure 19a

(b) Post-Discharge Failure to Warn 21a

(c) The Australian Veterans' Claims 26a

(d) Derivative Claims of Spouses, Parents and Children 27a

(e) Claims of Direct Injury to Veterans' Children 28a

G. DEFENDANTS' REMAINING CLAIMS AGAINST THE UNITED STATES 30a

H. OTHER CLAIMS OF IMMUNITY 30a

III. THE CASE MANAGEMENT PLAN 31a

IV. CLASS ACTION 40a

A. PREREQUISITES OF RULE 23(a) 40a

1. Numerosity 40a

2. Commonality 41a

3. Typicality 41a

4. Adequacy 42a

5. Additional Requirements 43a

B. THE REQUIREMENTS OF RULE 23(b) 43a

1. Rule 23(b)(1) 44a

2. Rule 23(b)(2) 46a

3. Rule 23(b)(3) 46a

PAGE

C. NOTICE 48a

V. SUMMARY JUDGMENT 50a

A. THE GOVERNMENT CONTRACT DEFENSE 51a

B. THE POSITIONS OF THE PARTIES 55a

C. SUMMARY JUDGMENT DENIED 57a

VI. DISCOVERY 59a

VII. STATUTES OF LIMITATIONS 61a

VIII. CONCLUSIONS 62a

UNITED STATES DISTRICT COURT

EASTERN DISTRICT OF NEW YORK

MDL NO. 381 (ALL CASES)

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IN RE

"AGENT ORANGE"
PRODUCT LIABILITY LITIGATION

INTRODUCTION

Plaintiffs, Vietnam war veterans and members of their families claiming to have suffered damage as a result of the veterans' exposure to herbicides in Vietnam,[1] commenced these actions against the defendant chemical companies.[2] Defen-

1 Plaintiffs' complaints allege injury as a result of their exposure to a variety of herbicides including Agents Orange, Pink, Purple and Green. For convenience, the court will refer to these herbicides collectively as "Agent Orange".

2 At the present time 19 companies or divisions have been named as defendants in actions consolidated before this court as MDL 381. Alphabetically listed, the defendants named to date are: Agriseet, Inc.; Amchem Products, Inc.; Ansul Company; AKA Wormald America, Inc.; The Dow Chemical Company; GAF Corporation; Hercules, Inc.; Hoffman-Taff, Inc.; Hooker Chemical Company; Monsanto Company; Northwest Industries, Inc.; Occidental Petroleum Company; Private Brands, Inc.; Riverdale Chemical; Syntex Corporation; Thompson-Hayward Chemical Company; Uniroyal, Inc.. Although an individual action may name some of the chemical companies and not others, the courts will refer to these companies collectively as "defendants". *(footnote continued)*

dants, seeking indemnification or contribution in the event they are held liable to plaintiffs, then served third party complaints against the United States.[1] Five motions are now considered: (1) the government's motion to dismiss the third party complaint on grounds of sovereign immunity; (2) plaintiffs' motion for class action certification; (3) defendants' motion for summary judgment; (4) plaintiffs' motion to proceed with "serial trials"; and (5) plaintiffs' motion to serve and file a fifth amended verified complaint.

I.

SUMMARY OF CLAIMS

There are four groups of plaintiffs: Vietnam veterans, their spouses, their parents, and their children. They assert numerous theories of liability, including strict product liability, negligence, breach of warranty, intentional tort, and nuisance. Plaintiff veterans seek to recover for personal injuries caused by their exposure to Agent Orange. The family members seek to recover on various derivative claims; some of the children assert claims in their own right for genetic injury and birth defects caused by their parents' exposure to the Agent Orange; and some of the veterans' wives seek to recover in their own right for miscarriages.

In their third party complaints against the government defendants allege negligence, misuse of product, post-discharge failure to warn, implied indemnity, denial of due process and failure to comply with herbicide registration laws.

Additionally, some of these named defendants have sought dismissal from some actions on the ground that they did not manufacture any of the herbicides in question. In some cases, plaintiffs have consented to a conditional dismissal of those defendants.

3 As part of an on-going effort to avoid the service and filing of excessive quantities of duplicative papers, the court has deemed the answers and third party complaints of the defendants to be served in all actions.

II.

GOVERNMENT'S MOTION TO DISMISS THIRD PARTY COMPLAINTS

Moving to dismiss under FRCP 12(b)(6), the government claims "intra-military immunity" under the rule of *Feres v. United States*, 340 U.S. 135 (1950), questions defendants' standing to assert some of their claims, urges that other claims may only be considered in the Court of Claims, and argues the applicability of three statutory exceptions to federal court jurisdiction under the Federal Tort Claims Act: (1) the discretionary function exception, 28 USC § 2680(a); (2) the combatant exception, 28 USC § 2680(j); and (3) the foreign country exception, 28 USC § 2680(k).

A. FTCA AS A GENERAL WAIVER OF SOVEREIGN IMMUNITY

Under the Federal Tort Claims Act (FTCA), 28 USC §§ 1346(b) *et seq.*, the United States government waives its sovereign immunity from suits in tort, and vests jurisdiction over such claims exclusively in the United States District Courts. 26 USC § 1346(b). Its legislative history reveals two dominant congressional objectives. First, Congress sought to relieve itself of the overwhelming pressures and time consuming burdens of considering and passing upon the numerous private bills sought by claimants barred by the doctrine of sovereign immunity. *Feres v. United States*, 340 US 135, 139-140 (1950). Second, Congress sought to provide a judicial remedy for deserving claimants who had suffered injuries or losses at the hands of government officials and employees. 1 Jayson, *Handling Federal Tort Claims* § 65.01 at 3-3 (1980).

Although the FTCA "waives the Government's immunity from suit in sweeping language," *United States v. Yellow Cab Company*, 340 US 543, 547 (1951), the waiver is limited by the terms of the act's exceptions. If a claim falls within any exception to the FTCA, sovereign immunity has not been

waived and the court is without jurisdiction to hear the case. *United States v. Orleans*, 425 US 807, 814 (1976); *Dalehite v. United States*, 346 US 15, 30-31 (1953).

B. THE FERES DOCTRINE

In *Feres v. United States*, 340 US 135 (1950), the Supreme Court determined that the FTCA did not waive sovereign immunity with respect to claims of servicemen *arising out of activities incident to or arising out of their military service*. The *Feres* Court considered three separate cases, two claims of medical malpractice and the claimed negligent quartering of a serviceman in a barracks containing a defective heating unit. All three presented the same basic question: whether a serviceman who sustained injury due to the negligence of others in the armed forces could maintain suit under the FTCA. The Court recognized its task as one of statutory interpretation, stating: "The only issue of law raised is whether the Tort Claims Act extends its remedy to one sustaining 'incident to the service' what under other circumstances would be an actionable wrong." 340 US at 138. After carefully considering the limited legislative history on point, the *Feres* Court concluded that "the Government is not liable under the Federal Tort Claims Act for injuries to servicemen where the injuries arise out of or are in the course of activity incident to service." 340 US at 146. Since much of the government's immunity defense turns on the Supreme Court's decision in *Feres*, a more detailed analysis of that case is appropriate.

At the outset, the *Feres* Court recognized the difficulty of interpreting a statute having so little legislative history:

> There are few guiding materials for our task of statutory construction. No committee reports or floor debates disclose what effect the statute was designed to have on the problem before us, or that it even was in mind. Under these circumstances, no conclusion can be above challenge, but if we misinterpret the Act, at least Congress possesses a ready remedy.
>
> 340 US at 138.

Digging deeper, the Court uncovered two clues to Congress' intent in enacting the FTCA. First, because the relationship between the government and members of the armed forces is "distinctively federal in character," 340 US at 143, the Court determined that Congress did not intend the government's liability to members of the armed services to depend upon the law of the place where the soldier happened to be stationed at the time of injury:

> It would hardly be a rational plan of providing for those disabled in service by others in service to leave them dependent upon geographic considerations over which they have no control and to laws which fluctuate in existence and value.
>
> 340 US at 143.

Second, the Court examined Congress' failure to integrate a serviceman's possible remedy in tort with the statutory "no fault" compensation scheme provided under the Veterans Benefits Act and concluded that

> If Congress had contemplated that this Tort Act would be held to apply in cases of this kind [where a serviceman sued the government], it is difficult to see why it should have omitted any provision to adjust these two types of remedy [FTCA and Veterans Benefits Act] to each other. The absence of any such adjustment is persuasive that there was no awareness that the Act might be interpreted to permit recovery for injuries incident to military service.
>
> 340 US at 144.

A third factor supporting the "*Feres* doctrine" was later enunciated in *United States v. Brown*, 348 US 110 (1954), where the Supreme Court considered "[t]he peculiar and special relationship of the soldier to his superiors, the effects of the maintenance of such suits on [military] discipline, and the extreme results that might obtain if suits under the Tort Claims Act were allowed for negligent orders given or negligent acts committed in the course of military duty." 348 US at 112; *see*

also Stencel Aero Engineering Corp. v. United States, 431 US 666, 671-72 (1977).

Although it concluded that Congress did not intend to include in the FTCA's waiver of sovereign immunity injuries sustained by a serviceman incident to his service, the *Feres* Court freely admitted that the issue was not free from doubt, and it invited congressional correction by calling attention to Congress' ability to legislatively remedy any erroneous interpretation of the statute. 340 US at 138. Many courts have questioned the wisdom of the *Feres* decision,[4] but its continued vitality is beyond dispute even to them.[5] Moreover, Congress's failure for 30 years to amend the FTCA and legislatively "correct" the *Feres* holding is a *sub silentio* "acquiesc[ence] in the holding of *Feres*," *United States v. Lee*, 400 F2d 558, 561 (CA9 1968), *cert. denied*, 393 US 1053 (1969), that strongly suggests that the Supreme Court correctly interpretated congressional intent.[6]

Any doubt as to the validity of the *Feres* doctrine was laid to rest in *Stencel Aero Engineering Corp. v. United States*, 431 US 666 (1977), which extended the reach of the "well established doctrine of *Feres v. United States*" to third party claims against the government, 431 US at 670, see discussion,

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4 See, e.g., *Peluso v. United States*, 474 F2d 605, 606 (CA3), *cert. denied*, 414 US 879 (1973) ("If the matter were open to us we would be receptive to appellants' argument that *Feres* should be reconsidered, and perhaps restricted"); *Thomason v. Sanchez*, 398 F Supp 500, 503 (D NJ 1975) ("we previously expressed reservations about the continued validity of the broad *Feres* doctrine. Upon reconsideration we reiterate that concern.")

5 See *Peluso v. United States*, *supra*, at 606 ("[*Feres*] is controlling. Only the Supreme Court can reverse it."); *Thomason v. Sanchez*, 539 F2d 955, 957 (CA3 1976) ("[W]e are powerless to jettison Feres or to dislodge it sufficiently to create an exception [here].") See, also *Watkins v. United States*, 462 F Supp 980 (SD Ga 1977), *aff'd on opinion below*, 587 F2d 279 (CA5 1979).

6 This conclusion follows even though later decisions have repudiated some of the clues to intent that the Supreme Court relied upon in reaching that decision. See *Schwager v. United States*, 279 F Supp 262, 263 (ED Pa 1968).

infra.[7] Even the Third Circuit Court of Appeals, the court most critical of the *Feres* doctrine,[8] concedes *Feres'* continuing validity and broad application:

> Although the current climate of academic and judicial thought finds governmental immunity from suit in disfavor, a plausible explanation appears for its continued application to members of the armed forces injured while in the course of active duty, regardless of whether that injury is caused by the negligence of a superior officer or by a direct command. If claims for injuries sustained by members of the armed forces in the execution of military orders were subjected to the scrutiny of courts of justice, then the civil courts would be required to examine and pass upon the propriety of military decisions. The security and common defense of the country would quickly disintegrate under such meddling. "[A]ctions and essential military discipline would be impaired by subjecting the command to the public criticism and rebuke of any member of the armed forces who chose to bring a suit against the United States." *Jefferson v. United States*, 178 F2d 518, 520 (4th Cir. 1949), *aff'd sub nom. Feres v. United States*, 340 US 135 (1950). Even if we were inclined to reconsider the doctrine in connection with an injury sustained as a result of a deliberate military command, we are foreclosed from so doing by the Supreme Court's recent reiteration of the doctrine, although in a different context in *United States v. Testan*, 424 US 392 (1976).
>
> *Jaffee v. United States*, 592 F2d 712, 717 (CA3 1979) (citations and footnote omitted).

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7 See also *Jaffee v. United States*, 592 F2d 712, 717 (CA3 1979), *cert denied*, 441 US 961 (1979); *Dilworth v. United States*, 387 F2d 590, 591 (CA3 1967); *Buckingham v. United States*, 394 F2d 483, 484 (CA4 1968).

8 See e.g., *Thomason v. Sanchez*, 539 F2d 955 (CA3 1976); *Peluso v. United States*, 474 F2d 605 (CA 3), *cert. denied*, 414 US 879 (1973).

C. THIRD PARTY ACTIONS AGAINST THE GOVERNMENT

The same court that determined in *Feres* that the FTCA did not waive sovereign immunity with respect to claims by servicemen arising out of activities incident to their military service also decided *United States v. Yellow Cab Company*, 340 US 543 (1951), which held that the FTCA permits a tort defendant to implead the United States as a third party defendant under a theory of indemnity or contribution. This created a new question: whether such a third party claim may be maintained when plaintiff's direct claim against the government would be barred by the principles of *Feres*.

The Supreme Court did not consider this question until 1977, when, in *Stencel Aero Engineering Corp. v. United States*, 431 US 666 (1977), it resolved the "tension between *Feres* and *Yellow Cab*" by holding that third party claims against the government are barred

> for essentially the same reason that the direct action [against the government by plaintiff] is barred by *Feres*. * * * [T]he right of a third party to recover in an indemnity action against the United States recognized in *Yellow Cab*, must be held limited by the rationale of *Feres* where the injured party is a serviceman.
>
> 431 US at 670, 673-4.

To permit recovery against the government, the Court observed, "would be to judicially admit at the back door that which has been legislatively turned away at the front door." 431 US at 673, *quoting Laird v. Nelms*, 406 US 797, 802 (1972).

D. FERES/STENCEL IN THE CONTEXT OF THIS ACTION

To the extent that plaintiffs' complaints seek recovery against the defendant chemical companies, of course, the *Feres* doctrine has no application. 1 Jayson, *Handling Federal Tort*

Claims § 155.02 at 5-66 n.9 and 5-77 n.24. Under *Stencel Aero Engineering Corp. v. United States*, however, any damages recovered by plaintiffs against defendants that plaintiffs could not recover directly from the United States may not be the subject of a third party complaint against the United States. 1 Jayson, *Handling Federal Tort Claims* § 164 at 5-220.

> [N]either contribution nor indemnity may succeed without the support of the initial negligence. * * * [A]s the claimed contribution and indemnity must depend for success upon the alleged negligence of the Government towards plaintiffs, and that is a negligence which is not actionable, the claim must fail.
>
> *Drumgoole v. Virginia Electric and Power Company*, 170 F Supp 824, 825-26 (ED Va 1952)

See also *Stencel Aero Engineering Corp. v. United States*, 431 US 666 (1977); *Certain Underwriters at Lloyds v. United States*, 511 F2d 159 (CA5 1975); *Barr v. Brezina Construction Company*, 464 F2d 1141 (CA 10 1972). For the sake of clear presentation in this opinion, however, the court will consider plaintiffs' claims as if they were asserted directly against the United States government, for, to the extent that plaintiffs may not maintain actions directly against the government, under the principles of *Stencel Aero*, the defendants' third party claims against the government must fall as well.[9]

At the outset, it is clear that *Feres* applies to suits against individual servicemen,[10] claims by servicemen who served in

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9 For convenience the court will refer to the principle that the government is immune from third party claims that would be barred by *Feres* if directly asserted against the government as "*Feres/Stencel*."

10 *Tirrill v. MacNamara*, 451 F2d 579 (CA9 1971); *Bailey v. DeQuevedo*, 375 F2d 72 (CA3 1967), *cert. denied*, 389 US 923 (1967); *Misko v. United States*, 453 F Supp 513, 514 (D DC 1977), *aff'd*, 593 F2d 1371 (CA DC 1979); *Pisciotta v. Ferrando*, 428 F Supp 685, 686 (SDNY 1977).

Vietnam,[11] claims of intentional torts,[12] and claims styled as constitutional torts.[13] This leaves two issues: first, whether the court should apply the principles of *Feres/Stencel* to this action at all; and second, whether plaintiffs' injuries arose out of or were suffered "in the course of activity incident to service." *Feres v. United States*, 340 US at 146.

E. SHOULD *FERES/STENCEL* APPLY TO THIS ACTION?

The government seeks to dismiss the third party complaints on the ground that the claims of the defendant chemical companies are barred by a straightforward application of *Feres/Stencel* principles. Defendants, however, argue that the court should undertake "a detailed and fresh examination of the rationale underlying those holdings [*Feres* and *Stencel*] in the light of other great and * * * superceding policy considerations," Hercules/Diamond Shamrock/Monsanto Memorandum at 10, to determine if the *Feres* doctrine should be applied in this case.[14] In support, defendants cite the "number of occasions [the Supreme Court has] reexamined and redefined or abandoned certain reasons for its holding in [the *Feres*]

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11 *Rotko v. Abrams*, 338 F Supp 46, 47 (D Conn 1971), *aff'd*, 455 F2d 992 (CA2 1972); 1 Jayson, *Handling Federal Tort Claims* § 155.08[4][i] at 5-138.

12 *Citizens National Bank of Waukegan v. United States*, 594 F2d 1154 (CA7 1979); *Jaffee v. United States*, 592 F2d 712 (CA3 1979), *cert. denied*, 441 US 961 (1979); *Everett v. United States*, 492 F Supp 318, 321 (SD Ohio 1980); *Schmid v. Rumsfeld*, 418 F Supp 19, 21 (ND Cal 1979).

13 *Everett v. United States*, 492 F Supp 318, 322 (SD Ohio 1980); *Nagy v. United States*, 471 F Supp 383, 384 (D DC 1979); *Misko v. United States*, 453 F Supp 513, 515 (D DC 1978), *aff'd*, 593 F2d 1371 (CA DC 1978); *Calhoun v. United States*, 475 F Supp 1, 4-5 (SD Cal 1977), *aff'd on opinion below*, 604 F2d 647 (CA9 1979), *cert. denied*, 100 SCt 1029 (1980).

14 See also Dow's Memorandum at 28; Thompson-Hayward's Memorandum at 12; Hooker's Memorandum at 6.

case." Hercules/Diamond Shamrock/Monsanto Memorandum at 7.[15]

Defendants' attempts to reargue the underlying rationale of *Feres* must be rejected, however, for two reasons. First, *Feres* was a case of statutory interpretation. 340 US at 138. *Adams v. General Dynamics Corp.*, 385 F Supp 890, 891 (ND Cal 1974), *aff'd*, 535 F2d 489 (CA9), *cert. denied*, 432 US 905 (1976). Even were this court to believe the Supreme Court's reasoning to be erroneous,[16] neither the Court nor Congress itself has altered *Feres'* basic holding, that in enacting the FTCA Congress did not intend to waive sovereign immunity with respect to injuries or loss suffered by servicemen in the course of activity incident to their service.[17]

Second, in holding the government immune from claims by servicemen the Supreme Court was concerned with more than

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15 See also Dow's Memorandum at 16.

16 Although some of the principles relied upon by the *Feres* Court have since been discredited or repudiated, *see* 1 Jayson, *Handling Federal Tort Claims*, § 155.05 at 5-86 through 5-91, much of the Court's reasoning remains valid and persuasive. *Stencel Aero Engineering Corp. v. United States*, 431 US 666, 672-73 (1977); *Jaffee v. United States*, 592 F2d 712, 717 (CA3 1979), *cert. denied*, 441 US 961 (1979); *Coffey v. United States*, 324 F Supp 1088, 1087, 1088 (SD Cal 1971), *aff'd*, 455 F2d 1380 (CA9 1972).

17 That Congress, despite ample opportunity, has failed to right any possible judicial misinterpretation indicates the soundness of the *Feres* conclusion regardless of whether specific elements of the Court's reasoning remain valid. See United States v. Lee et al., 400 F2d 558 (CA9 1968), *cert. denied*, 393 US 1053 (1969), wherein the court found that

> Congress has acquiesced in the holding of *Feres* [by] permitting the decision to remain undisturbed for eighteen years. * * * "[W]hen the questions are of statutory construction, not of constitutional import, Congress can rectify our mistake, if such it was, or change its policy at any time, and in these circumstances reversal is not readily to be made.
>
> 400 F2d at 561, quoting *United States v. South Buffalo Railway Company et al.*, 333 US 771, 774-75 (1948).

The reasoning of *Lee* is now twelve years stronger.

the effects of servicemen recovering against the government; the Court was also concerned about the disruptive effects caused by the very commencement of actions by servicemen complaining about the conduct of superiors. As the Court later observed in *United States v. Brown*, 348 US 110 (1954):

> The peculiar and special relationship of the soldier to his superiors, the effects of the maintenance of such suits on discipline, and the extreme results that might obtain if such suits under the Tort Claims Act were allowed for negligent orders given or negligent acts committed in the course of military duty, led the [Feres] Court to read [the Federal Tort Claims] Act as excluding claims of [servicemen for injuries incident to their service].
>
> 348 US at 112.

Thus, it is the suit itself as much as the possibility of recovery, that the Supreme Court feared would disrupt military discipline and the orderly conduct of military affairs. *Henninger v. United States*, 473 F2d 814, 815-16 (CA9), *cert. denied*, 414 US 819 (1973). To reexamine the *Feres* rationale in light of the circumstances of this case as defendants suggest, would itself defeat one of the very factors defendants seek to have the court reconsider. As the Supreme Court noted long ago in discussing the relationship between a soldier and his superiors:

> An army is not a deliberative body. It is the executive arm. Its law is that of obedience. No question can be left open as to the right to command in the officer, or the duty of obedience in the soldier. Vigor and efficiency on the part of the officer and confidence among the soldiers in one another, are impaired if any question be left open as to their attitude to each other.
>
> *United States v. Grimley*, 137 US 147, 153 (1890).

For these reasons, this court will neither reconsider the underlying rationale of the *Feres* decision nor weigh the cir-

cumstances here presented against the "*Feres* factors".[18] Right or wrong, the Supreme Court's conclusion that Congress did not intend passage of the FTCA to act as a waiver of sovereign immunity as to claims of servicemen injured incident to their service remains the law of the land. The *Feres/Stencel* doctrine bars defendants' attempt to seek contribution or indemnity from the United States based on any recovery plaintiffs may obtain for injuries that arose out of or were suffered incident to service.

F. DID PLAINTIFFS' INJURIES ARISE OUT OF OR INCIDENT TO MILITARY SERVICE?

The second issue is whether the claims of particular plaintiffs arose out of or in the course of activity incident to service. As professor Jayson has noted, "neither the [Federal Tort Claims] Act nor the opinions of the Supreme Court have indicated definitively the full meaning of the phrase 'incident to service' ". 1 Jayson, *Handling Federal Tort Claims* § 155.01 at 5-65.[19] This lack of definition complicates the task of applying the standard considerably, 1 Jayson *Handling Federal Tort Claims* § 155.01 at 5-65, but certain principles do emerge from an examination of the cases.

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18 Other courts have rejected similar attempts to reargue the "*Feres* factors" on a case-by-case basis. See e.g., Torres v. United States, 621 F2d 30, 32 (CA7 1980), (*Feres* applies even without nexus between military discipline and injury); *Joseph v. United States*, 505 F2d 525, 527 (CA7 1974) (denial of veterans benefits "completely independent" from consideration of applicability of *Feres* doctrine); *Henniger v. United States*, 473 F2d 814, 815-16 (CA9), *cert. denied*, 414 US 819 (1973) (although negligence at discharge does not affect military discipline, *Feres* still applies); *Healy v. United States*, 192 F Supp 325, 328 (SDNY 1961), *aff'd on opinion below*, 295 F2d 958 (CA2 1961) (availability of veterans benefits not controlling); *Morgan v. United States*, 366 F Supp 938, 939 (ND Fla 1973) (*Feres* bars claim even though plaintiff not subject to military discipline at time of injury); see also, 1 Jayson, *Handling Federal Tort Claims* § 155.02 at 5-74.

19 "The *Brooks—Feres—Brown* line of cases illustrates that the incident to service test is not easy to define and apply." *Woodside v. United States*, 660 F2d 134, 141 (CA6 1979).

1. General Principles

First, the phrase "incident to service" is not to be narrowly applied or "restricted to actual military operations such as field maneuvers or small arms instruction." *Hass v. United States*, 518 F2d 1138, 1141 (CA4 1975). Rather, "incident to service" is a broad concept that depends on a rational connection between the plaintiff's claim or loss and his status as a member of the armed forces. *Woodside v. United States*, 606 F2d 134, 141 (CA6 1979); *Harten v. Coons*, 502 F2d 1363, 1365 (CA 10 1974), *cert. denied*, 420 US 963 (1975). Professor Jayson summarizes this concept:

> [I]f the serviceman's injury or loss, when viewed in all the surrounding circumstances, has a real and substantial relationship to his military service, it will be regarded as incident to service and consequently barred under the *Feres* doctrine.
>
> 1 Jayson, *Handling Federal Tort Claims* § 155.02 at 5-66.[20]

Second, the cases applying the *Feres* doctrine emphasize that "it is the *status* of the claimant as a serviceman rather than the legal theory of his claim which governs." *Rotko v. Abrams*, 338 F Supp 46, 47 (D Conn 1971) (emphasis added), *aff'd on opinion below*, 455 F2d 992 (CA2 1972).[21] Thus, the *Feres*

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20 See also *Healy v. United States*, 192 F Supp 325, 327 n.8 (SDNY 1961), *aff'd*, 295 F2d 958 (CA2 1961) ("special soldier-Government relationship which embraces the incident-to-service concept covers those wrongs which, although not sustained in the course of active duty, are so closely related to it that they may be deemed 'incident' to that duty"); 1 Jayson, *Handling Federal Tort Claims* § 155.02 at 5-79 through 5-80 ("in order for a claim to be service-incident, there does not have to be any proximate causation in the common-law tort sense, between the military service or employment in the damage. All that is required is that as an incident of his service or employment the claimant is placed in a position where he is surrounded with conditions giving rise to the claim").

21 See also *US v. Lee*, 400 F2d 558, 562 (CA9 1968), *cert. denied*, 393 US 1053 (1969); *Knoch v. United States*, 316 F2d 532, 534 (CA9 1963); *Frazier v. United States*, 372 F Supp 208, 210 (MD Fla 1973).

doctrine has barred the claims of off duty servicemen injured before leaving their military base, *Watkins v. United States*, 462 F Supp 980, 988-89 (SD Ga 1977), *aff'd on opinion below*, 587 F2d 279 (CA5 1979), of off duty serviceman injured while "hitching" a ride home on military aircraft, *Archer v. United States*, 217 F2d 548, 552 (CA9 1954), *cert. denied*, 348 US 953 (1955); *Fass v. United States*, 191 F Supp 367 (EDNY 1961), and the wrongful death claim of the widow of a serviceman killed in an air crash while receiving flight instruction toward a commercial pilot's license. *Woodside v. United States*, 606 F2d 134 (CA6 1979).

Third, at the time of his injury plaintiff need not be on any military mission. *Feres v. United States*, 340 US 135 (1950) (serviceman died when barracks he was sleeping in burned due to defective heating unit),[22] nor subject to military discipline, *Hall v. United States*, 451 F2d 353, 354 (CA1 1971) (no "connection between the activity which injured plaintiff and [military] discipline" necessary).[23]

Professor Jayson concisely and fairly synthesizes the "incident to service" cases as follows:

> The duty status of the serviceman-claimant is of particular significance in determining whether the injury or loss was incident to service. The [Supreme Court's rationale in *Feres/Stencel*] applies to almost every situation which can be envisaged in which the injury or loss was sustained by a serviceman while on duty (as distinguished from one who is on leave or furlough), and it seems safe to say that the *Feres* doctrine will always apply in such circumstances.
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> 1 Jayson, *Handling Federal Tort Claims* § 155.02 at 5-69 through 5-71.

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22 See also Hass v. United States, 518 F2d 1138, 1141 (CA 4 1975) (*Feres* bars claim of off-duty serviceman injured while riding a dangerous horse rented from a Marine Corps stable).

23 See also *Hass v. United States*, 518 F2d 1138, 1140 (CA 4 1975); *James v. United States*, 358 F Supp 1381, 1385 (D RI 1973), *aff'd*, 530 F2d 962 (CA1), *cert denied*, 429 US 998 (1976).

> [I]f the serviceman's injury or loss occurs while he is off duty, while he is not within the physical confines of his military base, while he is not engaged in any military discipline, it is likely that the *Brooks* doctrine allowing Tort Claims Act recovery will apply;[24] in other words, that the injury or loss will be regarded as not incident to service. It should be noted, however, that the application of *Brooks* generally requires all of the mentioned factual elements to be present.
>
> Contrariwise, if the injury or loss occurs while the serviceman is on duty, or—without regard to whether he is on or off duty—if it occurs on the military base where he is stationed or on a military aircraft where he is directly under military control and discipline, or if it occurs while he is engaged in a military mission, it is likely that the *Feres* doctrine excluding the claim will apply. Again speaking generally, the presence of any one of the mentioned factual elements will bring application of the *Feres* doctrine.
>
> Jayson, *Handling Federal Tort Claims* § 155.02 at 5-67 through 5-68.

2. Application of *Feres/Stencel* to Plaintiffs' Claims

(a) Plaintiff Veterans' Claims of Exposure

The veterans' claims of injury clearly arise from their alleged exposure to Agent Orange during their military service. While virtually all of the veterans allege that their exposure took

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24 In *Brooks v. United States*, 337 US 49 (1949), the Supreme Court held that a serviceman may recover under the FTCA on claims which have no relationship to his military service. Anticipating the issues ultimately considered in *Feres* one term later, the Court stated:

> we are dealing with an accident which had nothing to do with the Brooks' army careers, injuries not caused by their service except in the sense that all human events depend upon what has transpired. Were the accident incident to the Brooks' service, a wholly different case would be presented. We express no opinion as to it * * *.
>
> 337 US at 52.

place in southeast Asia as a direct result of government efforts to defoliate the forests during the Vietnam war, the circumstances of each veteran's claimed exposure may vary. Some claim to have been directly sprayed with Agent Orange; some claim to have come into contact with Agent Orange as a result of being transported through sprayed areas; others claim to have been exposed to Agent Orange by ingesting water or food contaminated with the herbicide; and still others claim exposure during the transportation and handling of Agent Orange or its containers.

Whatever the facts surrounding a particular veteran's claim of exposure may be,[25] each veteran's presence in southeast Asia resulted solely from their military service, and, as to each veteran, "as an incident to his service or employement [he was] placed in a position where he [was] surrounded with conditions giving rise to the claim" of exposure. *See* 1 Jayson *Handling Federal Tort Claims* § 155.02 at 5-78 through 5-79. Even veterans who claim injury as the result of exposure to Agent Orange while off duty are within the parameters of the *Feres* doctrine because "when viewed in all the surrounding circumstances", a veteran's exposure in southeast Asia to a herbicide used for military purposes "has a real and substantial relationship to his military service * * * and consequently [his claim] is barred under the *Feres* doctrine." 1 Jayson, *Handling Federal Tort Claims* § 155.02 at 5-66.[26]

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25 Defendants' attempts in connection with this motion to require individual factual hearings on the circumstances of each veteran's exposure to Agent Orange must be rejected. Such rejection, however, does not preclude later examination of individual plaintiffs concerning the circumstances of their exposure to the extent that they may bear on other issues, *e.g.*, individual liability or damage questions.

26 See also *Woodside v. United States*, 606 F2d 134, 141 (CA6 1979) ("Where the two [the injury causing activity and the Armed Forces] are closely associated or naturally related, the activity will be deemed "incident to service" even though not an essential or integral part of the mission of the Armed Forces and even though not directly involving a command relationship between the soldier and the military").

The analysis is similar for those veterans who claim that their exposure to Agent Orange occurred within the United States or places other than southeast Asia during their military service. Their handling, transportation or distribution of Agent Orange during the course of their military duties was incident to their service, and their claims are equally barred under the *Feres* doctrine.

(b) Post-Discharge Failure to Warn

Only one of plaintiff veterans' claims does not fall easily under this analysis, i.e., that defendants breached a post-discharge duty to the veterans by failing to notify them of new scientific information concerning the possible harm that could result from exposure to Agent Orange. Plaintiff veterans allege that defendants' failure to inform them of possible dangers associated with exposure to Agent Orange prevented them from seeking more frequent medical examinations and thereby insuring early detection and treatment of disease. Defendants seek indemnity and contribution from the government on this claim too.

Defendants rely on three cases in opposition to the government's motion to dismiss these "post-discharge" claims: *Schwartz v. United States,* 230 F Supp 536 (ED Pa 1964); *Thornwell v. United States,* 471 F Supp 344 (D DC 1979); *Everett v. United States,* 429 F Supp 318 (SD Ohio 1980).

In *Schwartz v. United States* a serviceman treated for a sinus condition during the course of his military service had a radioactive dye, umbrathor, inserted into his sinus. After discharge from the military, plaintiff sought additional medical treatment for his sinus difficulties, but the Veterans Administration hospital that considered his treatment failed to obtain and examine his medical records, and, as a result of the hospital's negligence, the continued presence of the earlier-inserted umbrathor went undetected. As a result plaintiff contracted cancer. The court held that *Feres* did not bar plaintiff's claim against the government, because plaintiff's claim of negligence lay not in the original insertion of the umbrathor at the time he was in the military; rather, the court found that the actionable negligence was the hospital's failure to take reason-

able steps to diagnose and solve plaintiff's problem, the continued presence of the umbrathor in his sinus. 230 F Supp at 539-40. The court further opined that the government was negligent for its failure to follow-up its umbrathor patients in order to inform them of newly discovered dangers associated with the drug. 230 F Supp at 540.

In the second case relied on by the defendants, *Thornwell v. United States*, a former serviceman alleged that he was intentionally drugged with LSD as part of a secret government experiment and that the government negligently failed to warn plaintiff that his exposure to the drug subjected him to certain medical risks. The *Thornwell* court, noting the difficulties that courts encounter when the acts complained of commence while plaintiff is on active duty and then continue until well after discharge, 471 F Supp at 350, held that Thornwell's claim against the government was not barred by the principles of *Feres* because he did not allege merely continuing negligence. Rather,

> [h]e claim[ed] that he was *intentionally* harmed while he was on active duty and he further claim[ed] that, after he became a citizen [left the military], the defendants failed to exercise their duty of care by neglecting to rescue him from the position of danger which they had created, * * * two distinctly separate patterns of conduct, one intentional and [one] negligent.
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> 471 F Supp at 351.

The *Thornwell* court then found that plaintiff had alleged "two entirely different torts", and since the "complaint [was] perfectly clear in its allegation that the negligent act occurred, *in its entirety*, after [plaintiff] attained civilian status", 471 F Supp at 351 (emphasis in original), plaintiff's claim of governmental negligence was not barred by *Feres*. *Id.* The *Thornwell* court divided the cases involving servicemen's claims of post-discharge negligence into three types:

> To summarize the relevant precedent, it appears that there are three types of personal injury cases which involve

> post-discharge negligence. In the first case, the military performed separate negligent acts (i.e. two improper operations), one before, and one after, discharge; *United States v. Brown*, 348 US 110, and *Hungerford v. United States*, 192 F Supp 581 (ND Cal 1961), *rev'd on other grounds*, 307 F2d 99 (9th Cir. 1962), both clearly indicate that the injured veteran may recover for the later act. In the second case, a single negligent act occurs and its effects linger after discharge; *Feres v. United States*, 340 US 135 (1950), holds that, under some circumstances, this one act is subject to intra-military immunity. Third, the military may commit an intentional act and then negligently fail to protect a soldier turned civilian from the dire consequences which will flow from the original wrong. This court holds that, under such circumstances the injured civilian may have a valid claim against the tort feasors. The later negligence is a separate wrong, a new act or omission occurring after civilian status is attained; the perpetrators of this wrong must be held accountable for their conduct.
>
> 471 F Supp at 352.

In defendants' third case, *Everett v. United States*, 492 F Supp 318 (SD Ohio 1980), the wife of a deceased serviceman sued the government claiming that her husband's death by cancer was the result of his being intentionally exposed to large doses of radiation when he was forced to participate as an Air Force enlisted man in military maneuvers in a nuclear blast area less than one hour after detonation of the nuclear device. Plaintiff argued that her husband's march through the hazardous area was part of an experimental project to test the effects of nuclear radiation. Refusing to dismiss plaintiff's claim of post-discharge negligence, the *Everett* court found that the fact picture "properly falls in the third category" of the *Thornwell* analysis—intentional act incident to service, plus a separate wrong of post-discharge negligence. 492 F Supp at 325.

These cases are distinguishable from the facts at bar in several important respects. First, unlike the *Schwartz* case, the post-discharge negligence asserted here is not separate and distinct from the numerous acts of negligence alleged to have occurred incident to plaintiff's service. Schwartz, who sought medical treatment after his discharge, had a predischarge condition that was improperly diagnosed and negligently treated after discharge. That the condition arose due to government installation of the umbrathor in plaintiff's sinus while he was a serviceman does not alter the fact that the governmental negligence occurred, in its entirety, long after plaintiff became a civilian. Unsupported dicta aside, *Schwartz* stands only for the proposition that recovery for negligent performance of post-discharge medical treatment is not barred merely because the original condition arose from medical treatment that is not actionable under *Feres*.

Thus, *Schwartz* properly falls under *Thornwell*'s "first case", where "the military performed separate negligent acts (i.e., two improper operations), one before, and one after, discharge". 471 F Supp at 352. Here, plaintiff's claim of post-discharge failure to warn does not present a separate and distinct act of post-discharge negligence on the part of the government. Of course, any veteran in this case who faces a situation analogous to *Schwartz*, that is, who seeks post-discharge medical assistance from the government for an Agent Orange related malady and is negligently treated at a government hospital, may prosecute his claim for negligent treatment without the *Feres* impediment.

Second, unlike the *Thornwell* and *Everett* cases, plaintiffs here do not allege that the government caused them intentional harm by subjecting them to a form of human experimentation. *Thornwell*, joined by *Everett*, emphasized the distinction between cases of predischarge torts that were intentional and those that were negligent:

> Mr. Thornwell * * * does not allege a mere continuing negligent omission [which would be barred by *Feres*]. He claims he was *intentionally* harmed while he was on active

> duty and he further claims that, after he became a civilian, the defendants failed to exercise their duty of care by neglecting to rescue him from the position of danger which they had created * * * Mr. Thornwell's claims for in-service, and out-of-service, injuries, certainly involve two distinctly separate patterns of conduct, one intentional and [one] negligent.
>
> 471 F Supp at 351 (emphasis in original)

Thus, both the *Thornwell* and *Everett* courts were presented with the "third case" in the *Thornwell* analysis, where the military "commit[s] an intentional act and then negligently fail[s] to protect a soldier turned civilian from the dire consequences which flow from the original [intentional] wrong." 471 F Supp at 352. Here, the parties do not dispute that the government's motives in using Agent Orange in southeast Asia were valid military objectives: defoliate jungle growth to deprive enemy forces of ground cover and destroy enemy crops to restrict enemy's food supplies. Unlike *Thornwell* and *Everett*, plaintiffs here do not allege that the government committed "an intentional act and then negligently fail[ed] to protect [them]", *Thornwell v. United States* 471 F Supp at 352; *Everett v. United States*, 492 F Supp at 325. Accordingly, the facts at bar do not present the "third case" of the *Thornwell* analysis.

If this case fits within the *Thornwell* analysis at all, it is the "second case", where "a single negligent act occurs and its effects linger after discharge." 371 F Supp at 352. Despite all the inconsistencies pervading this difficult area of analysis, "it is clear, at the very least, that a mere act of negligence which takes place while the plaintiff is on active duty and which then remains uncorrected after discharge, is not grounds for suit". *Thornwell v. United States*, 471 F Supp at 351.

Plaintiff's complaints here neither allege nor support a conclusion that the post-discharge failure to warn was sufficiently separate and distinct from the underlying "incident to service" tort claims. Moreover, the *Feres* doctrine bars claims that are not only "incident to service" but also those which, like these, "arise out of" military service. The injuries here

alleged are "inseparably entwined" with, and directly related to, plaintiffs' military service, *see Healy v. United States*, 192 F Supp 325, 328 (SDNY 1961), *aff'd on opinion below*, 295 F2d 958 (CA2 1961); *Kilduff v. United States*, 248 F Supp 310, 312 (ED Va 1960); 1 Jayson, *Handling Federal Tort Claims* § 155.08[3][b] at 5-124. The important and well established principles of the *Feres* doctrine cannot be circumvented by inventive presentation or artful pleading which attempts to create an actionable post-discharge claim out of what is in reality a claim of continuing neglect. *See Thornwell v. United States*, 471 F Supp at 352.

(c) The Australian Veterans' Claims

The above analysis applies with equal force to the claims of the Australian veterans.[27] The only reported case on point, *Daberkow v. United States*, 581 F2d 785 (CA 9 1978), reached a similar conclusion. There, the claims of a West German serviceman, killed performing duties incident to a joint military activity conducted by the United States and West German governments, were held barred under *Feres*. The *Daberkow* court undertook an analysis of the three "*Feres* factors" and concluded that *Feres* applies with equal force to foreign servicemen injured incident to joint military activities because: (1) the scope of the United States government's liability should not depend on the fortuity of the location of any serviceman's duty station, whether that serviceman is an American or foreign serviceman; (2) the foreign government there involved had provided a means of compensating veterans and their families for injuries incident to service; and (3) the possible disruption of military discipline resulting from servicemens' claims is similar whether the serviceman is American or not. 581 F2d at 788.

Here, the claims of the Australian plaintiffs clearly fall within the *Daberkow* analysis. The Australian plaintiffs con-

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27 In *McMillan v. Dow*, CV 80-1143 (EDNY GCP), and *Elder v. Dow*, CV 80-1241 (EDNY GCP), 270 plaintiffs, all claiming to have been Australian war veterans who had served jointly with American Forces in Vietnam, seek damages for injuries caused by Agent Orange.

cede that their presence in southeast Asis during the period in question was the direct result of their country's participation in joint military operations with the United States, memorandum of Australian plaintiffs at 3, and they acknowledge the existence of a compensation scheme for Australian veterans similar to that provided by the United States government. Memorandum of Australian plaintiffs at 8. Moreover, to rule that the United States government has waived sovereign immunity with respect to the tort claims of foreign servicemen but not with respect to the claims of American servicemen would distort the underlying purposes of the FTCA, defy common sense, and almost certainly be contrary to the intent of an elected Congress. Since the court determines that the Australian veterans could not maintain an action directly against the United States, defendants in turn may not maintain their third party action for indemnity or contribution based on any recovery the Australian veterans may obtain from them. *Stencel Aero Engineering Corp. v. United States,* 431 US 666 (1977).

(d) Derivative Claims of Spouses, Parents and Children

Although the *Feres* doctrine does not apply to the servicemen's next of kin insofar as their own direct injuries or deaths are concerned, 1 Jayson, *Handling Federal Tort Claims* § 156 at 5-142 through 5-143 and cases cited therein, *Feres* bars suits by a serviceman's family for damages resulting from injuries the serviceman suffered incident to service, 1 Jayson, *Handling Federal Tort Claims* § 156 at 5-144, even where the derivative action is technically personal in character (e.g., wrongful death, loss of consortium). *Van Sickel v. United States,* 285 F2d 87, 91 (CA9 1969). This principle is demonstrated by *Feres* itself, where two of the three suits barred in that decision were wrongful death actions instituted on behalf of widows of servicemen who had died from injuries suffered incident to their service. *Feres v. United States, United States v. Griggs,* 340 US 135 (1950). (Deciding appeals from *Feres v. United States,* 177 F2d 185 (CA2 1949), and *Griggs v. United States,* 178 F2d 1 (CA 10 1949)).

Further, application of this rule bars claims of mental anguish suffered by family members, *DeFont v. United States*, 453 F2d 1239, 1240 (CA1 1972), *cert. denied*, 407 US 910 (1972) (wife's mental anguish over inadequate care provided serviceman husband not separate and distinct claim under *Feres*), and also bars the claims of veterans' spouses who allege damages that actually were the result of harm done to servicemen, *Harten v. Coons*, 502 F2d 1363, 1365 (CA 10 1974), *cert denied*, 420 US 963 (1975) (mother of accidentally conceived child cannot recover for negligent vasectomy performed on serviceman husband).

Applying these principles to the case at bar, it is clear that members of the veterans' families may not maintain actions against the United States based on their derivative claims (e.g., loss of society, comfort, companionship, services, consortium, guidance and support), or claims that result from a serviceman's injury (e.g., miscarriage). Accordingly, under the principles of *Stencel Aero*, the defendants may not seek indemnity or contribution from the United States for any liability imposed on them for claims of this nature.

(c) Claims of Direct Injury to Veterans' Children

Only the veterans' children's claim of direct injury requires additional analysis. Here, children of Vietnam veterans allege that they have suffered genetic and somatic injury as a result of a parent having been exposed to Agent Orange. This presents the difficult question of whether the injuries suffered by these children, who are not and never were members of the military, are derivative injuries suffered "incident to or arising out of military service," or whether they are direct injuries independent of those of their parents.

The closest precedent is *Monaco v. United States*, No. C 79-0860 (ND Cal Nov. 2, 1979), where plaintiff, the daughter of a serviceman exposed to radiation during his military service, claimed the government's negligence towards her father caused her to be affected with "chromosomal and genetic change" which in turn resulted in her being born with a birth defect. *Monaco v. United States*, slip op. at 3. There, the

court held that "[t]he test of *Feres* is whether plaintiff's injuries have as their genesis injuries allegedly sustained incident to the performance of military service," slip op. at 3, and found plaintiff's claim barred under this standard because "[plaintiff's] injuries are directly related to and arise out of the injury sustained by her father at the time he was a member of the United States Army." Slip op. at 4.

In the case at bar, the children's claims of genetic and physical harm are indirect because they arise only as the result of injuries to their veteran parents.[28] The injuries alleged by the children had their genesis in the exposure of their parents and, assuming that Agent Orange could produce the genetic changes alleged, the injuries were inflicted on the serviceman at the time of exposure. Thus, although Agent Orange may ultimately be found to have caused injuries in subsequently conceived children, those injuries, nevertheless, arose out of and were incident to the service of the parent. To hold otherwise might open the door for governmental liability to countless generations of claimants having ever diminishing genetic relationship to the person actually injured.

For these reasons, the court holds that the children's claims for genetic injury and birth defects from Agent Orange exposure of their veteran parents are injuries suffered "incident to and arising out of service" under *Feres* and cannot be recompensed in an action maintained directly against the government. Consequently, the defendants may not seek indemnity or contribution against the United States for any liability they ultimately may incur as a result of these claims. *Stencel Aero Engineering Corp. v. United States*, 431 US 666 (1977).

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28 Somewhat analogous is *Harten v. Coons*, 502 F2d 1363 (CA 10 1974), *cert denied*, 420 US 963 (1975), where a serviceman and his wife sued the United States for the costs of raising a child accidentally conceived after a negligent vasectomy on the husband. There, the court considered only the damage done to the husband and dismissed the complaint under *Feres* without regard to the wife's claim of independent injury. 520 F2d at 1364.

G. DEFENDANTS' REMAINING CLAIMS AGAINST THE UNITED STATES

Defendants have sought to style the remaining claims of their third party complaints in terms of constitutional deprivation and torts committed directly against them by the United States. This appears to be another exercise in pleading in an attempt to avoid statutory jurisdictional problems because, notwithstanding the defendants' characterizations, these remaining claims against the government are not tort claims; rather, they are essentially contractual in nature and must be so treated.

Congress has conferred on the courts jurisdiction over contract claims that is different from that over tort claims. Under the Tucker Act, 28 USC § 1491, jurisdiction for any claim founded upon an express or implied contract with the United States is conferred on the Court of Claims, where cases sounding in tort may not be maintained. The United States District Courts have concurrent jurisdiction over contract claims, but only when the claim does not exceed $10,000. 28 USC § 1346(a)(2). Here, it is beyond dispute that defendants' remaining third party claims against the government involve more than the $10,000 that deprives this court of jurisdiction over them. Consequently, the government's motion to dismiss must be granted as to the remaining claims. Of course, dismissal of defendants' third party claims here is without prejudice to defendants' right to pursue their claims against the government in the proper forum.

H. OTHER CLAIMS OF IMMUNITY

Arguing in the alternative, the United States seeks to dismiss defendants' third party complaints under three statutory exceptions to the FTCA: the combatant exception, 28 USC § 2680(j) (immunity not waived for "[a]ny claim arising out of the combatant activites of the military * * * during the time of war"); the foreign country exception, 28 USC § 2680(a) (immunity continues for "act or omission of an employee of the government * * * based upon the exercise or performance or

the failure to exercise or perform a discretionary function or duty on the part of [the government]").

Notwithstanding the apparent application of these exceptions to some of the claims here asserted, the court's determination that the *Feres/Stencel* doctrine operates to bar all tort claims advanced in the third party complaint makes it unnecessary to consider whether these exceptions do apply.

For all these reasons, the government's motion to dismiss the third party complaints is granted, and the third party complaints against the government deemed to have been made in all actions under MDL 381, are dismissed.[29]

III.

THE CASE MANAGEMENT PLAN

There have been pending for some time motions by various parties urging the court to make various orders affecting the overall management of this action, including such matters as class action treatment, summary judgment, discovery, and division of the action into various parts for pretrial and trial purposes. The court has reserved decision on all these motions pending resolution of two major questions that greatly affect how the case might be managed efficiently: (1) whether the United States was to be a party to the action, and (2) whether jurisdiction lies under federal common law or whether the principle and consequences of diversity jurisdiction must be considered. Now that both of these questions have been

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29 Plaintiffs are cautioned that the issues here are, to some extent, novel, and the strong arguments advanced by all parties should make it clear that the views expressed and rulings made in this decision are not entirely free from doubt. Accordingly, any plaintiff who believes that [s]he may have a valid claim against the United States government in the event that one or more of the above rulings are ultimately reversed on an appeal from this court's decision, should protect his/her interests to the greatest extent possible by filing a notice of claim form (Standard Form 95) with the proper agency of the United States government and taking whatever additional steps may be necessary to protect his/her rights.

answered,[30] it is time to get on with orderly discovery and ultimate disposition of the litigation.

In developing the case management plan described in this section, the court has weighed and considered many problems presented by this litigation. Some of them are:

1. There are a large number of plaintiffs and potential plaintiffs who claim to have been injured by exposure to Agent Orange. There are now approximately 167 suits pending in the Eastern District of New York involving over 3,400 plaintiffs. The court has been informed that there are many thousands more who have, at the court's request and pending decision of the class action motion, refrained from bringing individual actions.

2. There are numerous chemical companies named as defendants.[31] The fact that they may have had differing degrees of involvement in manufacturing and supplying Agent Orange for the government may or may not cause differing levels of responsibility for the effects of Agent Orange on plaintiffs.

3. The present plaintiffs come from most of the 50 states and from Australia. This may require consideration of

30 The first question is answered by the earlier part of this memorandum and order. The second question was answered by a decision and order of the Second Circuit Court of Appeals dated November 24, 1980 (Feinberg, C.J. dissenting) which held that this litigation should not be governed by federal common law, but rather must be controlled by the laws of the several states applied under diversity of citizenship principles. Technically, that question is still open because plaintiffs have filed a petition for en banc consideration by the Second Circuit. In addition, plaintiffs have indicated their desire to have the issues reviewed by the United States Supreme Court. However, enough light has now been shed on the problems to permit substantial progress in the trial court regardless of future actions by the Second Circuit or the Supreme Court. Managing this case under diversity of citizenship principles is by far the more difficult route to travel, but the court feels that it can develop a plan for efficient management even without the aid of federal common law for jurisdiction and for substantive law purposes. If further review of the federal common law issue produces a change, then the remaining work of the court and of all parties will be simplified and the management plan can be easily adapted at that time.

31 See footnote 2 *supra*.

varying standards of conduct, rules of causation and principles of damages that may substantially affect the results in individual cases.

4. The causation issues are difficult and complex. Clearly this is not the "simple" type of "disaster" litigation such as an airplane crash involving a single incident, having a causation picture that is readily grasped through conventional litigation techniques, and presenting comparatively small variations among the claimants as to the effects upon them of the crash. With the Agent Orange litigation, injuries are claimed to have resulted from exposure to a chemical that was disseminated in the air over southeast Asia during a period of several years. Each veteran was exposed differently, although undoubtedly patterns of exposure will emerge. The claimed injuries vary significantly. Moreover, there is a major dispute over whether Agent Orange can cause the injuries in question, and there are separate disputes over whether the exposure claimed in each case did cause the injuries claimed. The picture is further complicated by the use in Vietnam of other chemicals and drugs that also are claimed to be capable of causing many of the injuries attributed to Agent Orange.

5. The litigation presents numerous questions of law that lie at the frontier of modern tort jurisprudence. Among them are questions of enterprise liability, strict products liability, liability for injuries that appear long after original exposure to the offending substance, and liability for so-called genetic injuries.

6. Many of the people exposed to Agent Orange may not even yet have experienced the harm it may cause.

7. Numerous scientific and medical issues are presented, and there are serious questions of whether there is adequate data to reach scientifically sound conclusions about them. There is the further question of whether legally permissible conclusions may nevertheless be reached on data that would not permit "scientific" conclusions.

8. Various agencies of the government have expressed concern but as yet have shown little tangible action about

the problems claimed to have been caused by the government's use of Agent Orange.

9. There are important and conflicting public policies that run as crosscurrents through many phases of both the substantive and procedural problems of this litigation.

10. There is a wide choice available among the many procedural devices that could be used for addressing and ultimately deciding this controversy.

All of these problems are compounded by the practical realities of having on one side of the litigation plaintiffs who seek damages, but who have limited resources with which to press their claims and whose plight becomes more desperate and depressing as time goes on, and having on the other side defendants who strenuously contest their liability, who have ample resources for counsel and expert witnesses to defend them, and who probably gain significantly, although immeasurably, from every delay that they can produce.

Overarching the entire dispute is a feeling on both sides that whatever existing law and procedures may technically require, fairness, justice and equity in this unprecedented controversy demand that the government assume responsibility for the harm caused our soldiers and their families by its use of Agent Orange in southeast Asia.

Out of these and other problems it is this court's task as the transferee judge in this multidistrict litigation to supervise and manage the action so as to bring it to a "just, speedy and inexpensive determination," Rule 1 FRCP, either in this court, or if that is not possible, then in the transferor courts after completion here of as much of the litigation as may fairly and reasonably be resolved under the supervision of this single judge.

With the foregoing and other problems in mind, the court has considered a variety of possibilities for managing this multidistrict litigation. Each possibility has both advantages and disadvantages. Among the numerous possibilities are the following:

1. Transfer all actions to the Eastern District of New York for trial before this court.

a. Advantages: All parties would know precisely where they stand, and how the action would be handled. There would tend to be consistency in the results to the extent permitted by the varying applicable laws.

b. Disadvantages: Handling the cases would take the full time of this court, which would be able to handle no other cases, a result that would be unfair not only to the other judges in the Eastern District of New York who are already overburdened with one of the heaviest criminal workloads in the nation, but also to other civil litigants in the Eastern District, who would be further delayed in getting their cases to trial. Moreover, to separately try these actions would take far too long a time; probably neither the litigants not this court would live long enough to see the last case tried.

2. Supervise all discovery, prepare a pretrial order, and then remand the cases for separate trials in the transferor districts around the country.

a. Advantages: This is by far the easiest course of action for this court to take. In many MDL cases this is an acceptable and proper technique and achieves all of the MDL benefits available to those cases. It accomplishes coordinated discovery, a single plan for processing up through the pretrial order, and a shared workload in the actual trial of the individual actions.

b. Disadvantages: This technique would require separate trials of each action in the transferor courts, a technique that would be repetitious and wasteful with respect to the issues that are common to all actions. Although testimony of key expert witnesses might be made available to each of the transferor courts through use of videotape so that the need for those witnesses to personally appear at each trial would thereby be eliminated, the opportunity to cross-examine the experts on special problems that relate to the individual plaintiffs would still be lost. The greatest disadvantage of this method is that it would place unnecessary burdens on each of the transferor judges, each of whom would have to struggle with identical legal and factual issues, and it

would thus fail to reach the level of judicial efficiency and economy that MDL procedures were designed to achieve.

3. Coordinate discovery and other pretrial work, consolidate the actions for trial of the common issues of fact and law, and then remand to the transferor districts for separate trials of the individual issues such as specific causation and damages.

a. Advantages: A single trial of common issues has obvious benefits in economy and efficiency. Spreading to other courts the workload of trying individual cases at least makes a judicial solution to this litigation possible in terms of time and workloads.

b. Disadvantages: The consolidation technique addresses only the pending actions, that is, it involves those situations where the plaintiff has seized the initiative and brought suit. However, there are many people with valid claims who for one reason or another have not asserted them by bringing suit and who would therefore not recover for damages inflicted, including damages of which they might not yet even be aware.

4. Certify the litigation as a class action, using all the flexibility of that device, including subclasses, to determine common issues before this court and ultimately determine the individual issues either under the direct supervision of this court or after remand to other courts.

a. Advantages: Class action treatment would give this court full control over the entire litigation. Any determinations reached in the class action would bind all defendants as well as all members of the class except those who chose to opt out, and as to them, their suits could be consolidated for joint trial with the class action. By use of subclasses to be certified as the need later arises, additional trials on issues common to identified subclasses may be conducted either here in the Eastern District of New York, or by the transferor courts after remand, or by a combination of both. This method provides the greatest flexibility and the greatest opportunity for judicial efficiency and economy of time and money.

b. Disadvantages: The disadvantages with class action treatment lie largely in technical and procedural problems that have arisen with the class action device in other contexts. Such problems have proved particularly troublesome in the context of mass tort cases. Having considered carefully the nature of those technical problems, this court is satisfied that they can be overcome by following the case management plan described in this section and the steps described under the section entitled "Class Action".

After considering the submissions and arguments of the parties and after weighing all of the foregoing and many other considerations, the court has developed the following plan for management of the Agent Orange litigation assigned to it under MDL No. 381:

1. Class action. The Agent Orange litigation will be certified as a class action under FRCP 23(b)(3). (See discussion below entitled "Class Action").

2. Statutes of limitations. The court will take up immediately the problems of statutes of limitations. (See discussion below entitled "Statutes of Limitations").

3. Separate trials of some issues. Whenever common issues are presented, a common trial should be had, if practicable. These trials will be held as promptly as possible in the Eastern District of New York, preserving at all times the parties' right to a jury trial when properly demanded. Plaintiffs have moved for so-called "serial" trials, describing in some detail the issues they would like tried and the order in which they should be tried. Except insofar as plaintiffs' plan is adopted by this decision, that motion is denied. As appears in the discussion below entitled "Summary Judgment" there is an issue that can be separately tried at the threshold of this action: whether the defendants are protected by the "government contract defense". The court intends to try that issue separately. After that, if needed, there may be an additional trial addressing liability questions such as negligence, product liability, and general causation, where a jury will be able to hear all of the evidence relating

to the development, manufacture and use of Agent Orange, and the scientific and medical evidence relating to its potential effects, and report its findings in carefully drafted special verdicts. Those special verdicts can then serve as a framework for later disposition of the issues of individual causation (whether a particular veteran was exposed, to what degree, and with what results) and damages. The court has not yet determined whether the individual issues can be best resolved under the direct supervision of this court or by remand of subclass actions to transferor courts for processing in ways appropriate to the circumstances of the subclasses. Those determinations necessarily must be made at a later date.

4. Discovery. Until now the Court has stayed all discovery except that conducted voluntarily. That stay will now be lifted, and mandatory discovery shall now proceed according to the plan described in the section below entitled "Discovery".

5. Miscellaneous.

a. Plaintiffs' motion to amend the complaint by adding the United States government and many of its officials on a theory of constitutional tort is denied. The issues sought to be raised by plaintiffs through the amendment are sufficiently different from those presented by this already complex litigation to require that the constitutional claims against government officials and the government itself be pursued by one or more separate actions, if plaintiffs are so inclined. Denial of the motion, therefore, is without prejudice to whatever rights plaintiffs may have to assert those claims in separate proceedings.

b. Jurisdiction and pleadings. There is some confusion as to the precise state of the pleadings in the many pending actions. The court has not yet determined what precise disposition will be made of the various individual actions in light of the class certification. Unless a party files in a particular action a notice disclaiming the benefit afforded by the following, all of the pleadings in all cases now or hereafter filed under MDL 381 are deemed amended as follows:

1. The complaints are deemed amended to allege the residence of the plaintiffs, and to name and allege the residence of each of the defendants whose citizenship is diverse from that of the plaintiff. All plaintiffs are deemed to have joined all diverse defendants as defendants in their individual actions.

2. All defendants are deemed to have answered all complaints brought against them, with general denials plus all affirmative defenses thus far raised in filed answers to any of the Agent Orange MDL cases. All answers are deemed to include crossclaims for indemnification and contribution against all other defendants. All crossclaims are deemed denied.

The court recognizes that (1) any case management plan may have to be changed in order to adapt to new or unforeseen circumstances; (2) not every facet of the plan adopted for this Agent Orange litigation will please everyone; and (3) this litigation presents problems of a type and magnitude that differ substantially from the established precedents so that it cannot proceed in one of the well established patterns for lawsuits. Under these circumstances, it is the court's obligation to control the case, seeking always the goal of a "just, speedy and inexpensive determination" of the litigation.

Lawsuits, of course, must be guided and decided by the principles of substantive law and rules of procedure established by Congress, by the legislatures of the various states, and by the principles of common law where applicable. The rules of procedure, however, are not intended to require rigid adherence to preordained steps; instead, they are standards and requirements to be used, molded and adapted so as to achieve just, speedy and inexpensive determination of lawsuits. Although "speedy" and "inexpensive" are relative terms having almost ironic implications in the context of the Agent Orange litigation, this court is satisfied that the plan described will, with the cooperation of counsel, attain at least a "just" determination of these lawsuits, and will do so at less cost and in less time than would a more conventional approach.

IV.

CLASS ACTION

Contending that many of the issues here presented are best determined by class action to avoid duplicitous litigation by the individual members of the proposed class, plaintiffs have moved for a conditional order pursuant to FRCP 23 permitting the suit to proceed as a class action on behalf of all persons exposed to Agent Orange and various members of their families. Under Rule 23(c)(1) and 23(d), the order would be subject to such later modification as the court may find appropriate and necessary in light of future developments in the case.

Before a class action may be maintained under Rule 23, the action must meet the prerequisites of Rule 23(a) and one set of the alternate requirements of Rule 23(b). Defendants oppose class treatment, but continue to advance some outrageous arguments in the name of advocacy; detracting from whatever valid arguments they might otherwise have, they argue that plaintiffs fail to satisfy even one of the elements necessary under Rule 23. Plaintiffs, equally undiscriminating in their advocacy, argue that *every* element of *every* alternative of Rule 23 is met here.

The court has carefully read and considered the voluminous submissions of the parties and has heard and considered oral arguments of counsel on this issue. After due consideration, the court determines that plaintiffs have demonstrated that a class action is appropriate under Rule 23(b)(3). Accordingly, plaintiffs' motion for conditional class action certification is granted as herein provided. Certain specific findings are required.

A. THE PREREQUISITES OF RULE 23(a)

1. Numerosity

The members of the plaintiff class here are so numerous that joinder of all members of the class in the same action is impracticable. Rule 23(a)(1). Indeeed, if the only members of

the class were the plaintiffs in the 167 actions now pending in this court, "numerosity" would be satisfied.

2. Commonality

Rule 23(a)(2) states that a class action may only be maintained if "there are questions of law or fact common to the class." Here, the action raises numerous questions of law *and* fact common to the class. Whatever may be the individual questions relating to the manner and extent of each veteran's exposure to Agent Orange, and relating to the particular effects of Agent Orange on the veteran when considered along with his/her medical history, circumstances, lifestyle and other unique conditions, all of these claims share a common ground when proceeding through the many factual and legal issues relating to the government contract defense, negligence by the defendants, whether Agent Orange was a "defective product", and the many questions embodied in the concept of "general causation". In part, the requirement of commonality is one aimed at determining whether there is a need for combined treatment and a benefit to be derived therefrom. Here the need is compelling, and the benefits are substantial.

3. Typicality

Rule 23(a)(3) requires that in a class action "the claims or defenses of the representative parties [be] typical of the claims or defenses of the class." As already noted, plaintiffs' claims of negligence, products liability and general causation, as well as the defendants' government contract defense are not just "typical" of the entire class, they are identical. In a few areas, such as the rules governing liability and the application of various statutes of limitations, the claims may fall into groups that are "typical", but even there the different groups' claims can be efficiently managed either on a subclass basis or directly by way of separately determining the issues. Although the named plaintiffs for purposes of the class action are yet to be designated, the court is satisfied that out of the extremely large pool available representative plaintiffs can be named who will present claims typical of those of the class. As already indi-

cated, the issues of specific causation and damages will, of course, ultimately require individual consideration, but until that point in the litigation is reached, a class action appears to be the only practicable means for managing the lawsuit.

4. Adequacy

Rule 23(a)(4) provides that a class action may only be maintained if "the representative parties will fairly and adequately protect the interests of the class." Adequacy of representation depends on the qualifications and interests of counsel for the class representatives, the absence of antagonism or conflicting interests, and a sharing of interests between class representatives and absentees. 7 Wright & Miller *Federal Practice and Procedure* §§ 1765-1769 at 615-657. Here, the court will select from among the hundreds of plaintiffs representative persons who have a substantial stake in the litigation, who lack conflicts, antagonisms or reasons to be motivated by factors inconsistent with the motives of absentee class members, and who will fairly and adequately protect the interests of the class. Further the class will be represented by experienced, capable counsel, Yannacone and Associates,[32] who have shown themselves willing to undertake the considerable commitment of time, energy and money necessary for the vigorous prosecution of the claims here asserted.

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32 Yannacone and Associates is a consortium of lawyers who have banded together for purposes of this lawsuit under the leadership of Victor Yannacone, who brought the initial actions and who was designated as lead counsel for the plaintiffs shortly after the cases were transferred to this court by the multidistrict panel. Some of the lawyers in the consortium represent plaintiffs in one or more of the component Agent Orange actions; others apparently have been brought into the group because of special expertise and experience. This case is too complex and too demanding for any single attorney to handle it on behalf of plaintiffs. Yannacone and Associates has already demonstrated that the combined efforts of its twenty or so members will fairly and adequately protect the interests of the class and that together they have the expertise and desire to prosecute this demanding action properly.

5. Additional Requirements

Courts have implied two additional prerequisites to class action certification that are not specifically mentioned in Rule 23: (1) there must be an identifiable class, and (2) the class representatives must be members of the class. 7 Wright and Miller *Federal Practice and Procedure* §§ 1760, 1761 at 579-592. Here, the plaintiff class can be readily identified; they are persons who claim injury from exposure to Agent Orange and their spouses, children and parents who claim direct or derivative injury therefrom. The court has intentionally defined the class in broad terms consistent with the demands of this litigation. If we begin with the broadest possible class, the issues common to all members of that class can be resolved. It may later prove advantageous to create subclasses for various purposes, *e.g.*, for resolving statute of limitations claims, for determining liability in "negligence" as opposed to "product liability" states, and finally, perhaps, for preserving the class action format prior to remand to the transferor judges so as to provide them with the greatest possible flexibility in ultimately determining the issues remaining after multidistrict treatment has ended.

B. THE REQUIREMENTS OF RULE 23(b)

Plaintiffs seek certification of a plaintiff class under Rule 23(b)(1)(A), (b)(1)(B), (b)(2) & (b)(3).[33] For the reasons set

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33 Rule 23(b) provides that an action may be maintained as a class action if the prerequisites of subdivision (a) are satisfied, and in addition:

> (1) the prosecution of separate actions by or against individual members of the class would create a risk of
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> (A) inconsistent or varying adjudications with respect to individual members of the class which would establish incompatible standards of conduct for the party opposing the class, or
>
> (B) adjudications with respect to individual members of the class which would as a practical matter be dispositive of the interests of the other members not parties to the adjudications or substantially impair or impede their ability to protect their interests; or
>
> (2) the party opposing the class has acted or refused to act on grounds generally applicable to the class, thereby making appropri-

(footnote continued)

forth below, however, the court concludes that class certification is appropriate only under Rule 23(b)(3).

1. Rule 23(b)(1)

Rule 23(b)(1), the "prejudice" class action provision, authorizes class action treatment if some prejudice would result to any party if members of the class were required to litigate their claims in a series of individual actions, and the resulting prejudice can be obviated by using a class action. The provision is broken down into two separate clauses.

Rule 23(b)(1)(A) authorizes a class action when the prosecution of separate actions would create a risk of "inconsistent or varying adjudications with respect to individual members of the class which would establish incompatible standards of conduct for the party opposing the class". This section focuses on the difficulties that class action certification may visit on the party opposing the class action. It is designed to prevent situations in which different courts establish "incompatible standards of conduct" for that party.

Rule 23(b)(1)(A) is *not* meant to apply, however, where the risk of inconsistent results in individual actions is merely the possibility that the defendants will prevail in some cases and not in others, thereby paying damages to some claimants and not others. *McDonnell Douglas Corporation v. United States District Court, Central District of California*, 523 F2d 1083, 1086 (CA9 1975), *cert denied sub nom, Flanagan v. McDonnell*

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ate final injunctive relief or corresponding declaratory relief with repect to the class as a whole; or

(3) the court finds that the questions of law or fact common to the members of the class predominate over any questions affecting only individual members, and that a class action is superior to other available methods for the fair and efficient adjudication of the controversy. The matters pertinent to the findings include: (A) the interest of members of the class in individually controlling the prosecution or defense of separate actions; (B) the extent and nature of any litigation concerning the controversy already commenced by or against members of the class; (C) the desirability or undesirability of concentrating the litigation of the claims in the particular forum; (D) the difficulties likely to be encountered in the management of a class action.

Douglas Corporation, 425 US 911 (1976). "The risk of paying money [damages] to some and not others is not what the rule-makers intended by the words 'incompatible standards of conduct.' " A. Miller, *An Overview of Federal Class Actions: Past, Present and Future* at 43 (1977). Since the only effect of inconsistent decisions here would be the payment of damages to some claimants and not others, class certification under Rule 23(b)(1)(A) would be inappropriate.

Rule 23(b)(1)(B) authorizes a class action when separate actions would create a risk of "adjudications with respect to individual members of the class which would as a practical matter be dispositive of the interest of the other members not parties to the adjudications or substantially impair or impede their ability to protect their interest." This rule emphasizes possible undesirable effects on the class members, rather than on the opposing party, and permits a class action if separate suits might have undesirable effects on the class members. "The paradigm Rule 23(b)(1)(B) case is one in which there are multiple claimants to a limited fund * * * and there is a risk that if litigants are allowed to proceed on an individual basis those who sue first will deplete the fund and leave nothing for the late-comers." A. Miller *An Overview of Federal Class Actions: Past, Present and Future* at 45 (1977). *See also Administrative Committee's Note, Rule 23*, 39 FRD 69, 101 (1966).

However large the potential damages may appear here, plaintiffs offer no evidence of the likely insolvency of defendants and apparently do not, in defendant Dow's words, "have the temerity to argue that the aggregate claims of the purported class exceed the total assets of the five named defendants."[34] Defendant Dow's Memorandum in Opposition to Class Certification at 20. For good measure, Dow adds "[s]uch an argument would be ludicrous on its face." *Id.* As one court has noted, "without more, numerous plaintiffs and a large *ad*

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34 Since that statement was made the number of named defendants has increased, see footnote 2, *supra*, thus rendering class certification under Rule 23(b)(1)(B) even more inappropriate.

damnum clause should [not] gurarantee (b)(1)(B) certification." *Payton et al. v. Abbott Labs et al.*, 83 FRD 383, 389 (D Mass 1979). Thus, certification under Rule 23(b)(1)(B) is not appropriate.

2. Rule 23(b)(2)

Rule 23(b)(2) authorizes class action treatment where "the party opposing the class has acted or refused to act on grounds generally applicable to the class, thereby making appropriate final injunctive relief or corresponding declaratory relief with respect to the class as a whole." This subdivision "does not extend to cases in which the appropriate final relief relates exclusively or predominantly to money damages", *Advisory Committee's Note, Rule 23*, 39 FRD 69, 102 (1966); rather, it applies when injunctive relief or declaratory relief on which injunctive relief could be based is proper. *Eisen v. Carlisle & Jacquelin*, 391 F2d 555, 564 (CA2 1968), *vacated on other grounds*, 417 US 156 (1974). Here, the relief requested relates predominantly to money damages so the class may not be certified under Rule 23(b)(2).[35]

3. Rule 23(b)(3)

Rule 23(b)(3) authorizes a class action when the court finds "that the questions of law or fact common to the members of the class predominate over any questions affecting only individual members, and that a class action is superior to all other available methods for the fair and efficient adjudication of the controversy." The rule lists four matters pertinent to a consideration of these issues: "(A) the interest of members of the class in individually controlling the prosecution or defense of separate actions; (B) the extent and nature of any litigation concerning the controversy already commenced by or against

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35 The court is aware that plaintiffs have requested that a trust be established to apply defendants' future profits for the benefit of the plaintiff class. While this possible relief has not been excluded from the case, it does not serve as a sufficient basis for class certification pursuant to FRCP 23(b)(2).

members of the class; (C) the desirability or un-desirability of concentrating the litigation of the claims in the particular forum; (D) the difficulties likely to be encountered in the management of a class action."

Considering the circumstances of this action, and bearing in mind the manner in which the class action will proceed, the court determines that the interest of class members in individually controlling the prosecution of separate actions is minimal, especially at this early stage of the litigation when the issues under consideration concern the relationship between the defendants and the government, issues that impact equally on every plaintiff's claim. Rule 23(b)(3)(A). Later stages of this litigation, especially those concerned with individual causation and damages, may require reconsideration of this element and possibly decertification, but at this stage, individual class members have almost no interest in individually controlling the prosecution of separate actions. Indeed, the problems inherent in every one of the individual actions are so great that it is doubtful if a single plaintiff represented by a single attorney pursuing an individual action could ever succeed.

With respect to the extent and nature of currently pending litigation, almost all the Agent Orange litigation currently pending is before this court under the multidistrict litigation procedures. All those cases are advancing simultaneously, and certification of a class action will serve the goals of judicial economy and reduce the possibility of multiple lawsuits. Rule 23(b)(3)(B). In addition, it will significantly expedite final resolution of this controversy.

With respect to the desirability of concentrating the litigation of the claims in this forum, the actions have already been concentrated before this court through the use of MDL procedures. Allowing it to proceed as a class action will minimize the hazards of duplicate efforts and inconsistent results. Moreover, given the location of present counsel and the widely varying citizenships of the interested parties, this court is as appropriate a place to settle the controversy as any. Rule 23(b)(3)(C).

With respect to the difficulties likely to be encountered in the management of a class action, the court has carefully and

humbly considered the management problems presented by an action of this magnitude and complexity, and concluded that great as they are, the difficulties likely to be encountered by managing these actions as a class action are significantly outweighed by the truly overwhelming problems that would attend any other management device chosen. While the burdens on this court might be lessened by denying class certification, those imposed collectively on the transferor courts after remand of the multidistrict cases would be increased many times.

Having carefully considered the above factors and all other circumstances of this action, the court is satisfied that at this time the questions of law and fact common to the members of the class predominate over questions of law or fact affecting only individual members, and that a class action is superior to any other available method for the fair and efficient adjudication of the controversy.[36]

Because over a year ago this court requested plaintiffs not to file actions pending decision on the class action motion, because the facts and issues in all of the pending and future cases are to a great degree identical, or at least parallel, and because this action presents a variety of questions in relatively untested areas of the law, this court sees the objectives of FRCP Rule 1 and Rule 23, as well as the interests of justice, best served by determining here, and for all parties, as many legal and factual issues as may properly be decided. To achieve those ends the court will certify this to be a class action under FRCP 23(b). Formal certification will be by separate order to be processed under the court's instructions.

C. NOTICE

Rule 23(c)(2) states that "In any class action maintained under subdivision (b)(3), the court shall direct to the members of the class the best notice practicable under the circumstances,

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36 There being no need to certify subclasses of plaintiffs at this time, the court will postpone consideration of the subclass issues to a later time when the most efficient and logical course to follow will be clearer.

including individual notice to all members who can be identified through reasonable effort."

Two problems with notice must be considered: how the notice shall be given and what the notice shall say. In the order to be prepared and signed which will officially certify the class, the court will direct both the manner and content of notice.

As to the manner of notice, both the rule and the court decisions display a preference for individual notice whenever possible, and ordinarily the financial burden of giving notice falls on the plaintiffs. Individual notice to all members of the broad class to be certified may be impossible. The rule requires, however, only "the best notice practicable under the circumstances". Counsel are invited to submit suggestions in writing as to how "the best notice practicable" may be given to the over two million Vietnam veterans and their families who are included in the class by January 23, 1981. Certain possibilities have already been suggested, including having the Veterans Administration mail copies of the notice to all Vietnam veterans on their mailing list, and soliciting the aid of veterans' organizations around the country to circularize their memberships.

It may be that other persons or organizations are willing to assist in resolving the notice problem. The news media in particular might volunteer space or time to assure "the best notice practicable" to veterans and their families. Still other means by which the notice requirement can be fairly and reasonably fulfilled may exist. After considering all suggestions received by January 23, 1981, the court will determine how notice shall be given.

As to the form of notice, Yannacone and Associates is directed to serve and file by January 7, 1981 a proposed form of notice which shall include at least the following information in as simple and direct a form as possible:

1. It shall state briefly the nature of plaintiffs' suit, their causes of action and their claims for relief.

2. It shall set out the definition of the plaintiff class and in general terms the issues that will have to be determined.

3. It shall notify the recipient that at his/her request the court will exclude him/her from the class so long as the request is received by a date specified in the notice that counsel and the court will set. Rule 23(c)(2)(A).

4. It shall make clear that any findings, whether favorable or not, will be binding on all class members who do not request exclusion. Rule 23(c)(2)(B).

5. It shall explain that any class member who does not request exclusion may enter an appearance through his/her counsel. Rule 23(c)(2)(C).

Counsel for defendants shall meet on or before January 16, 1981 to discuss and, if possible, agree upon suggested modifications to plaintiffs' proposed form of notice and serve and file their suggested changes, if any, with the court by January 23, 1981. To the extent that agreement among defense counsel is not possible, they may make separate submissions.

By January 16, 1981 Yannacone and Associates shall submit to the court a list of no more than 12 persons whom they propose as representative plaintiffs for the class action. Defendants may, if they choose, submit any comments, objections or suggestions with respect to the proposed representative plaintiffs by January 23, 1981. The court will then determine who will be the named plaintiffs in the class action, and plaintiffs' attorneys will be directed by further order of this court to prepare an appropriate class action order and class action complaint.

V.

SUMMARY JUDGMENT

On this motion, defendants argue that they are entitled to summary judgment against plaintiffs because, acting under compulsion of federal law, they were forced to manufacture Agent Orange under circumstances carefully controlled by the government. Cases analyzing similar arguments have utilized various terminology to describe this defense, the most common being that defendants seek to "share in the government's

immunity", *Green v. ICC America, Inc.*, 362 F Supp 1263, 1264 (ED Tenn 1973), or that defendants assert a "government contract defense". *See Merritt, Chapman & Scott Corporation v. Guy F. Atkinson Company*, 295 F2d 14, 16 (CA9 1961).

A. THE GOVERNMENT CONTRACT DEFENSE

Whatever its label, the government contract defense[37] in this case essentially seeks to avoid manufacturer liability on the ground that the circumstances surrounding Agent Orange's manufacture and use were controlled and dictated by the United States government acting in a capacity in which the government is protected from liability by sovereign immunity and the *Feres/Stencel* doctrine.

In the seminal case of *Yearsley et al. v. W. A. Ross Construction Company*, 309 US 18 (1940), the Supreme Court recognized the possibility that contractors who properly perform their work pursuant to contracts with the United States government might avoid liability for injuries resulting from the work done. Plaintiff, who sought to recover damages for erosion of his waterfront property caused by defendant's construction of dikes in the Missouri River, conceded that defendant had acted "pursuant to a contract with the United States Government, under the direction of the Secretary of War and the supervision of the Chief of Engineers of the United States, for the purpose of improving navigation of the Missouri River." 309 US at 19. The Court held that the contractor was not liable, because the work done had been properly authorized and properly performed. Summarizing the relevant principles, the Court stated

> [I]t is clear that if [the] authority to carry out the project was validly conferred * * * there is no liability on the part of the contractor for executing [the government's] will. (citations omitted). Where an agent or officer of the Government purporting to act on its behalf has been held to be liable for his conduct causing injury to another, the

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37 For purposes of convenience this defense will be called the "government contract defense" for the remainder of this decision.

> ground of liability has been found to be either that he exceeded his authority or that it was not validly conferred.
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> 309 US at 20-21.

Following these principles, subsequent cases have stated the rule in various ways:

> To the extent that the work performed by [the contractor] was done under its contract with the [government], and in conformity with the terms of said contract, no liability can be imposed upon it for any damages claimed to have been suffered by [plaintiffs].
>
> *Myers v. United States,* 323 F2d 580, 583 (CA9 1963);

> The [contract work] was pursuant to validly conferred authority under a contract [with the government]. The question of foreseeability of harm and the possible need to protect against it arose when the Government framed its terms. There is no charge that what the contractor did was not what it was required to do. * * * [The question of taking measures to safeguard against harm caused by the plans] was a decision which rested with the Government. The Government did not provide for such additional precautions in the plans, and the [contractor] is not to be held liable for this omission.
>
> *Dolphin Gardens, Inc. v. United States,* 243 F Supp 824, 827 (D Conn 1965);

> Where the act, or failure to act, which causes an injury is one which the [government] contractor was employed to do, and the injury results not from the negligent manner of doing the work, but from the performance thereof or failure to perform it at all, the contractor is entitled to share the immunity from liability which the public enjoys, but * * * the contractor is not entitled to the immunity of

> the public body from liability where the injury arises from the tortious manner of performing the work."
>
> *Green v. ICI America, Inc.*, 362 F Supp 1263, 1265 (ED Tenn 1973) *quoting* 9 ALR 3d 382, 385 (1966).[38]

Behind this rule lie considerations of fairness and public policy. First, tort liability principles properly seek to impose liability on the wrongdoer whose act or omission caused the injury, not on the otherwise innocent contractor whose only role in causing the injury was the proper performance of a plan supplied by the government. The imposition of tort liability on a wrongdoer can have a strong prophylactic effect; tortfeasors held liable for damages that flow from their wrongdoing have a strong incentive to prevent the occurrence of future harm. *See* W. Prosser, *Law of Torts* § 4 at 23 (4th ed. 1971). Before any societal benefit can be derived from the deterrent effects of tort liability, however, the party in a position to correct the tortious act or omission must be held accountable for the damages caused and thus motivated to prevent future torts.

Second, the policy considerations that lend continuing vitality to governmental immunity argue for "extension" of that freedom from liability to some government contractors. As one court put it:

> To impose liability on the contractor [for the government's planning failures] would render the Government immunity * * * meaningless, for if the contractor was

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38 See also *Merritt, Chapman & Scott Corp. v. Guy F. Atkinson Company*, 295 F2d 14, 16 (CA9 1961) ("where the plans and specifications were drawn and adopted *prior* to the contract * * * the contractor is entitled to follow such plans and specifications, exercising due and proper care and skill, and require parties damaged to look to the government, which has required such a contract, for relief.") (emphasis in original); *O'Grady v. City of Montpelier*, 474 F Supp 186, 188 (D Vt 1979), *rev'd on other grounds*, 573 F2d 747 (CA2 1978) (no action lies against contractor who entered contract with city, performed work in accordance with detailed specifications provided by the city, did not act outside scope of authority, and performed work in non-negligent manner).

> held liable, contract prices to the Government would be increased to cover the contractor's risk of loss from possible harmful effects of complying with decisions of [governmental] officers authorized to make policy judgments.
>
> *Dolphin Gardens, Inc. v. United States*, 243 F Supp 824, 827 (D Conn 1965).[39]

These considerations take on increased significance when the government contracts with manufacturers of military ordnance in war time. Where, as here, manufacturers claim to have been compelled by federal law to produce a weapon of war without ability to negotiate specifications, contract price or terms, the potential for unfairly imposing liability becomes great. Without the government contract defense a manufacturer capable of producing military goods for government use would face the untenable position of choosing between severe penalties for failing to supply products necessary to conduct a war, and producing what the government requires but at a contract price that makes no provision for the need to insure against potential liability for design flaws in the government's plans.

A recent New York State court decision, *Casabianca v. Casabianca*, 428 NYS2d 400 (SCt Bronx County May 2, 1980), recognized the problems of a manufacturer who provides products necessary to conduct a war under contract with the government. In *Casabianca* the court held that, as a matter of public policy, a manufacturer who supplies equipment to the United States Army in a time of war pursuant to government specifications may not be held liable for any inadequacy in the plans because

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39 This many even understate the effect of imposing liability on government contractors so situated, because those contractors would presumably seek to insure against possible liability for the government's inadequacies and insurance companies do not spread the risk of loss without some financial benefit to themselves. If taken to the extreme, the government might ultimately find it less expensive to waive immunity under the circumstances, accept liability for injuries caused by its planning failures, and thereby avoid the expensive middleman.

> A supplier to the military in time of war has a right to rely on such specifications and is not obligated to withhold from the United States armed forces material believed by the latter to be necessary because the manufacturer considers the design to be imprudent or even dangerous. His conformance, under such circumstances, to the specifications provided to him should be, and is, a complete defense to any action based on design, whether faulty or not.
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> *Casabianca v. Casabianca*, 428 NYS2d 400, 401-402 (SCt Bronx County May 2, 1980) (Stecher, J.).

Although some courts ignore or deny its existence,[40] the Supreme Court's recognition of the defense in *Yearsley v. W. A. Ross Construction Company* and the application of the defense in numerous other decisions certifies its continuing viability.[41]

B. THE POSITIONS OF THE PARTIES

As defendants would apply the government contract defense here, plaintiffs' claims against the corporate defendants could not be actionable because the United States Government (1) invented Agent Orange, (2) experimented with herbicides for military use for over 20 years; (3) knew dioxin would be a byproduct of the manufacture of 2,4,5-T, an ingredient in Agent Orange; (4) knew the toxicity of dioxin as early as 1962; (5) compelled the defendants to manufacture Agent Orange using the mandatory provisions of the Defense Production Act, 50 USC App §§2051, *et seq.*, and various economic and "informal" pressures to coerce defendants; (6) refused to allow

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40 See *Foster v. Day & Zimmerman, Inc.*, 502 F2d 867, 873-74 (CA8 1974); *Whitaker v. Harvell-Kilgore Corp.*, 418 F2d 1010, 1013-15 (CA5 1969).

41 See e.g., *A. J. Myers v. United States*, 323 F2d 580, 583 (CA9 1963); *Merritt, Chapman & Scott Corp. v. Guy F. Atkinson Company*, 295 F2d 14, 16 (CA9 1961).

defendants to produce phenoxy herbicides for their civilian markets; (7) unilaterally determined the terms and specifications of the contracts under which the defendants manufactured Agent Orange, including complete control over the chemical composition, volume, weight, purity, acidity, appearance, quality, inspection, testing procedures, packaging, marking and method of shipment used; (8) visited defendants' plants regularly to conduct inspections and tests to ensure the defendants' compliance with the contract terms; (9) assured the availability to defendants of the raw materials needed to produce Agent Orange on a high priority basis; (10) unilaterally determined the nature and extent of the use in southeast Asia of the Agent Orange produced, with concentrations of component herbicides far in excess of any commercially manufactured product; and (11) exercised exclusive control over the use of Agent Orange in southeast Asia.

Defendants argue (1) that they merely manufactured and supplied Agent Orange to the government pursuant to validly authorized contracts, (2) that Agent Orange was not manufactured before and has not been manufactured since; (3) that they completed their compelled manufacture of Agent Orange in strict compliance with the specifications supplied by the government, specifications that contained no obvious or "glaring" defects that would have alerted the defendants of any impending danger in following them; and (4) that they manufactured Agent Orange without any negligence on their part.

In short, the defendants claim to have served their country's military needs without any shortcomings in their performance. They contend that but for the government's decision to use Agent Orange in southeast Asia the defendants would not have manufactured Agent Orange and the harm claimed to have been caused by the herbicide would never have occurred. Defendants further note that they were in no position to question the government's military judgment to use the herbicide as as a tactical weapon during the Vietnam war, and had no choice under federal law but to comply with the government's order to produce Agent Orange.

Thus, defendants argue that they were merely agents of the government acting under the compulsion of federal law in patriotic furtherance of the Vietnam war effort. They claim to have produced an effective product that met, in every respect, the government's detailed specifications and expectations. Defendants argue that well established legal principles, sound social policy, and general principles of fairness dictate that they not be held liable for injuries resulting solely from their strict compliance with government contracts for war related products that performed exactly as expected in their military uses.

Plaintiffs argue (1) that defendants should not be permitted to "hide" behind government specifications to avoid liability, and (2) that summary judgment is inappropriate because the defendants "bald assertion that the [government] specifications were, in fact, complied with" cannot be accepted by the court as true without a trial to determine whether defendants' allegations with respect to the government contract defense are factually correct.

C. SUMMARY JUDGMENT DENIED

The standards for consideration of a motion for summary judgment pursuant to FRCP 56 are well established and need not be repeated here except to note that on a motion for summary judgment the court "cannot try issues of fact; it can only determine whether there are issues to be tried," American Manufacturers Mutual Insurance Company v. American Broadcasting-Paramount Theatres, Inc., 388 F2d 272, 279 (CA2 1967), *cert denied*, 404 US 1063 (1972) and the court "must resolve any doubts in favor of the party opposing the summary judgment motion." *SEC v. Research Automation Corp.*, 585 F2d 31 (CA2 1978).

Having considered all the authorities cited and the arguments of counsel, the court is satisfied that a government contract defense exists and has possible application to the facts at bar. Plaintiffs are correct, however, to the extent that they argue the presence of fact issues which preclude summary judgment since any application of the government contract

defense in this context will require that defendants prove that their relationship with the government and performance under the government contract was essentially as they describe it. In short, whatever the minimum showing necessary to support a finding for defendants on the government contract defense may be, allegations with respect to their contract performance and relationship with the government present issues of fact requiring trial.

Resolution of the fact issues by separate trial will determine whether defendants have a complete defense to the claims asserted against them. This is the reason the court has chosen the government contract defense for the Phase I trial as discussed in section III above. The elements of the defense will be uniquely adapted to consideration and adjudication, separate and apart from the issues of liability, causation and damages. As a practical matter, discovery as to these discrete issues will be rather narrow compared to the discovery that some of the other fact issues presented by this action may require.

Although satisfied that the government contract defense exists and has possible application here, however, the court is not satisfied that the parties have sufficiently focused their attention on the precise standards applicable and the specific facts defendants need to prove to make out the defense under the circumstances of this action.[42] Accordingly, the parties are

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42 For example, some courts view the government contract defense as coupling the government's sovereign immunity with the contractor's obligation to follow the government's directions, see *Green v. ICI America, Inc.*, 362 F Supp 1263, 1265 (ED Tenn 1973). It may well be that the sovereign's immunity from suit is not an essential element of the defense. See *Dolphin Gardens, Inc. v. United States*, 243 F Supp 824, 827 (D Conn 1965); *A. J. Myers v. United States*, 323 F2d 580, 583 (CA9 1963). Similarly, other courts frame the elements of the defense in terms of military necessity. See Casabianca v. Casabianca, 428 NYS2d 400, 401-402 (SCt Bronx County May 2, 1980) (Stecher, J.). Whether these elements are essential to the successful assertion of the government contract defense, however, need not be determined because the court has determined that the sovereign is immune under the circumstances here presented, see discussion Section II *supra*, and it is beyond dispute that the Agent Orange produced by defendants here was manufactured in time of war.

to prepare (1) briefs focusing on this issue, and (2) proposed special verdicts to be presented to the jury in the Phase I trial. Of course, the proposed special verdicts will not be binding at this stage; rather, they are to assist counsel and the court in focusing upon the issues that require discovery and trial in Phase I. These items are to be served and filed by January 23, 1981. The court will hear argument on the standards and elements of the government contract defense as applied to this case and will discuss the proposed special verdicts at the pretrial conference to be held January 30, 1981 at 9:00 a.m.

As noted above, the court believes that early resolution of this potentially dispositive issue will serve the interests of justice and judicial efficiency. Although justice is always served by the efficient management of any action, this is especially true in this case where any other procedure adopted might subject the parties to years of discovery and trial only to have later generations of judges, lawyers, and litigants discover that an early trial of the government contract defense might have preempted the need for almost all of the discovery undertaken and saved thousands of person-hours and millions of dollars associated with those unnecessary efforts. The parties here are entitled to have this action handled as efficiently and expeditiously as possible and, in the court's considered view, the approach here outlined balances the numerous interests in a way that will best serve those goals.

VI.

DISCOVERY

Under the case management plan set forth in section III of this pretrial order, it is appropriate for discovery to proceed now as efficiently and expeditiously as possible on all Phase I issues. Most of the material necessary to support the defendants' government contract defense is in defendants' own control. Plaintiffs have continually urged an early trial, and lead counsel has repeatedly represented to the court that depositions of a limited number of Dow employees are the only discovery necessary before proceeding to trial. Although the

government is no longer a party to this action, the Department of Justice has promised the court cooperation with all parties in facilitating full and complete discovery of all material within the government's control.

To date, very little discovery has taken place. By practice and procedure order dated May 18, 1979, this court stayed all discovery proceedings until further court order; by order dated February 5, 1980, this stay was modified to allow the parties to "conduct voluntary discovery by agreement among themselves". In addition to whatever voluntary discovery has taken place, the court on specific motions has permitted the depositions of certain plaintiffs with a "high risk of unavailability for trial" to be taken. *E.g., Hartz v. Dow Chemical Company,* 79 C 2752 (EDNY GCP) (memorandum and order of January 18, 1980).

The first wave of Phase I discovery is to commence immediately, and the stay is vacated, but only for this purpose. The first wave of discovery, as defined in § 1.50 of the Manual for Complex Litigation, is designed to disclose all preliminary matters necessary before proceeding to discovery on the merits, specifically:

> (1) the names and location of witnesses whose written interrogatories or depositions upon oral interrogatories may be sought on the merits; (2) the existence, location and custodian of documents and other physical evidence, the production of which may be sought on the merits; and (3) information concerning the transactions upon which the claims for relief are based.

The parties are directed to serve and file first wave interrogatories by January 15, 1981. Any objections to these interrogatories shall be served and filed on or before January 23, 1981. Defendants shall confer and submit joint interrogatories and objections. Failure to timely object will operate as a waiver of any and all objections. The objections will be discussed and ruled on at the conference scheduled for January 30, 1981. The court does not anticipate frivolous objections to any interrogatories, but any objections made without a good faith basis will be summarily denied as well as subject their proponent to

sanctions. The answers to all first wave interrogatories are to be served and filed by February 13, 1981.

The court has previously received and reviewed several suggestions for orderly discovery advanced by the parties. However, those proposals were made without the benefit of the court's case management plan. Counsel are to submit memoranda outlining their thoughts and proposals for the remainder of Phase I discovery by January 23, 1981. Proposals should focus on the scope and type of material to be discovered, as well as the sequence and timing that discovery should take. Those proposals should have as their goal the expeditious, free, and open exchange of information contemplated by the Federal Rules of Civil Procedure and required by this court in all cases before it. At the January 30, 1981 conference the court will hear argument about the various proposals and soon thereafter will establish a comprehensive discovery and trial schedule to govern the remainder of Phase I.

VII.

STATUTES OF LIMITATIONS

In light of the Second Circuit's decision that federal question jurisdiction is inappropriate in the context of this action, *In re Agent Orange*, No. 80-7079 November 24, 1980, diversity jurisdiction under 28 USC § 1332 may provide the sole basis for subject matter jurisdiction. Since federal courts sitting in diversity apply state law on questions involving the statute of limitations, *Guarantee Trust Company of New York v. York*, 326 US 99, 109 (1945), and since this action will ultimately involve the statute of limitations of most, if not all, of the states, counsel shall submit briefs setting forth the applicable law of each state on the subject. Even if the pending petition for rehearing before the Second Circuit en banc is granted and federal question jurisdiction is ultimately determined to be a valid ground for subject matter jurisdiction, this survey would be helpful, even necessary, in determining what the federal common law is or should be. The briefs shall be served and filed by January 30, 1981, and reply briefs, if necessary, shall be served and filed by February 6, 1981.

VIII.

CONCLUSIONS

Government's Motion to Dismiss:

The government's motion to dismiss is granted, and the third party complaints against the government deemed to have been made in all actions under MDL 381 are dismissed.

Case Management Plan:

The case will be tried in "phases" and in accordance with the procedures and principles outlined above in the section of this order entitled "The Case Management Plan".

Plaintiffs' Motion for "Serial Trials":

Plaintiffs' motion for serial trials is denied except insofar as the case management plan adopted by the court incorporates the suggestion to use "phased" trials. The denial of the motion is without prejudice to renewal at some future date when the court may seek additional input as to the future course of this litigation.

Plaintiffs' Motion to Amend the Complaint:

Plaintiffs' motion to amend the complaint by adding the United States government and many of its officials on a theory of constitutional tort is denied without prejudice to the commencement of a separate action.

Class Action:

Plaintiffs' motion for class action certification is granted to the extent of conditional class action certification pursuant to FRCP 23(b)(3). In all other respects the motion is denied. In addition:

By January 23, 1981 counsel are to submit their suggestions as to how "the best notice available" may be given to the members of plaintiff class.

By January 7, 1981 counsel for plaintiffs shall serve and file a proposed form of notice. Counsel for defendants shall meet by January 16, 1981 to discuss and, if possible, agree upon suggested modifications to the proposed notice. Defendants' suggested modifications, if any, shall be served and filed by January 23, 1981.

By January 16, 1981 counsel for plaintiffs shall submit a list of no more than 12 persons as proposed class representatives. By January 23, 1981 defendants shall serve and file any suggestions, objections or comments they have with respect to the proposed representative plaintiffs. At the January 30, 1981 conference the court will determine who the named plaintiffs will be.

Defendants' Motion for Summary Judgment:

Defendants' motion for summary judgment is denied because the defendants' assertion of the government contract defense presents fact issues requiring trial. In addition:

By January 23, 1981 the parties are to serve and file (1) briefs focusing on the precise standards applicable and the specific facts defendants need to prove in order to successfully establish the government contract defense, and (2) proposed special verdicts to be presented to the jury in the Phase I trial. The court will hear argument on the standards and elements of the government contract defense as applied to this case and will discuss the proposed special verdicts at the pretrial conference to be held January 30, 1981.

Discovery:

The stay of discovery previously imposed is vacated to the extent that the parties are to engage in first wave discovery of Phase I issues. In addition:

The parties are to serve and file first wave interrogatories by January 15, 1981. Any objections to these interrogatories shall be served and filed on or before January 23, 1981. Defendants are to confer and submit joint interrogatories and objections. Failure to file timely objections will operate as a waiver of any and all objections. The objections will be discussed and ruled upon at the January 30, 1981 conference. The answers to all first wave interrogatories are to be served and filed by February 13, 1981.

Counsel are to submit memoranda outlining their thoughts and proposals regarding a comprehensive plan and timetable for Phase I discovery by January 23, 1981. The court will hear argument about the various proposals for Phase I discovery at the January 30, 1981 conference.

Statutes of Limitations:

Counsel shall serve and file briefs setting forth the applicable law relating to the statutes of limitations of every state by January 30, 1981. Reply briefs, if necessary, shall be served and filed by February 6, 1981.

Next Conference:

The next pretrial conference will be held before the undersigned at the Long Island Courthouse on January 30, 1981 at 9:00 a.m. Any party wishing to propose additions to the agenda should do so by letter to the court received no later than January 27, 1981.

SO ORDERED.

Dated: Westbury, New York
December 26,1980.

/s/ GEORGE C. PRATT

GEORGE C. PRATT
U. S. District Judge

APPENDIX B

APPENDIX B

Boston College Environmental Affairs Law Review

1979 Volume 8 Number 2

SOLDIER OF ORANGE: THE ADMINISTRATIVE, DIPLOMATIC, LEGISLATIVE AND LITIGATORY IMPACT OF HERBICIDE AGENT ORANGE IN SOUTH VIETNAM

*Bruce F. Meyers**

* * * * *

II. HISTORY OF DEVELOPMENT AND USE

Subsequent to Darwin's discovery of phototrophic (light seeking) response in plant cells and the chemical isolation of auxin (beta indole acetic acid), synthesis of similar growth-regulating compounds was conducted, resulting in the development of two phenoxy herbicides in use today: 2,4-D (2,4-di-

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* Mr. Meyers served in Vietnam as a Colonel of Marines and was Regimental Commander of the 26th Marine Regiment at Khesanh in 1968. The areas around Khesanh were among the most heavily sprayed during the use of Agent Orange. He is currently a graduate fellow at Yale Law School in an LL.M. program in medical jurisprudence while on leave as Associate Dean at the University of Puget Sound Law School. Mr. Meyers is serving as a consultant to the plaintiffs in the class action suit discussed in his article.

The author would like to acknowledge Ralph S. Brown, Jr., Simeon E. Baldwin Professor of Law at Yale, whose seminar on "Toxic Substances" was the encouragement for this article.

chlorophenoxy acetic acid) and 2,4,5-T (2,4,5-trichlorophenoxy acetic acid). In August of 1941, a botanist at the University of Chicago suggested research of the possible use of growth-regulators as "plant killers."[2] World War II spurred further development and testing and, in 1943, the U.S. Army began research in earnest toward the military applications of herbicides in war.[3] This grew out of a warning by the National Academy of Sciences (NAS) to the Secretary of War of the potential dangers (to the United States) of biological warfare.[4]

The outstanding effectiveness of these two herbicides in controlling the growth of broad-leaved plants and weeds, coupled with their apparently low mammalian toxicity and low application rates, resulted in their rapid acceptance in world agriculture. Peterson[5] reported that the annual production of 2,4-D alone exceeded 14,000 pounds in 1950 and by 1960 manufacturers (principally American) were producing 36 million pounds.

Herbicides were not used in World War II, but a small program for screening potential herbicides for possible military use continued after the war. In 1959 the first large-scale military defoliation by aerial application using the butyl esters of 2,4-D and 2,4,5-T was conducted at Ft. Drum, New York. The success of these tests spurred the Office of Secretary of Defense Robert McNamara in May of 1961 to request feasibility tests for defoliation of jungle vegetation in Vietnam.[6] The

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2 Peterson, G.E., *The Discovery and Development of 2,4-D*, 41 Agr. Hist., 243 (1967) [hereinafter Peterson].

3 *Id.*

4 [Davis, Donald E., *Herbicides in Peace and War*, BioScience, Feb., 1979, 84], at 91.

5 Peterson, *supra* note 2.

6 Young, A.L., Capt. USAF, *The Toxicology, Environmental Fate and Human Risk of Herbicide Orange and its Associated Dioxin, USAF Occupational and Environmental Health Laboratory Technical Report TR-78-02* (Oct. 1978) [hereinafter USAF Herbicide Orange Report], at 1-2.

results of these tests (first conducted in Thailand, later in South Vietnam (SVN)) were that significant defoliation and anticrop effects could be obtained with two different mixtures of herbicides. The first was a mixture of the n-butyl esters of 2,4-D and 2,4,5-T and the iso-butyl ester of 2,4,5-T. This mixture was code-named "Purple". The second "military" herbicide was code-named "Blue" and was composed of the acid and sodium salt of cacodylic acid. The code names referred to the color of bands (Orange, White, Blue, Purple, Pink and Green) which had been painted around the center of the 55-gallon drum containers that were used to ship the herbicide to South Vietnam. They were painted in this manner in order to aid in identification by the personnel using them.[7] The initial choice of herbicides used in Vietnam was based: "upon the chemicals that had had considerable research, proven performance, and the practical background. Also other factors had to be considered, such as availability in large quantity, costs and *known or proven safety in regard to their toxicity to humans and animals* . . . ."[8]

Purple and Blue were the first herbicides to arrive in Vietnam in January 1962. They were followed shortly thereafter by Pink (mixtures of n- and iso-butyls of 2,4,5-T), and Green (composed of the n-butyl ester of 2,4,5-T), followed in 1965 by Orange and White (picloram). Herbicide Orange replaced all uses of Purple, Pink and Green and eventually became the most widely used military herbicide in SVN.[9] Agent Orange was sprayed from aircraft (mostly C-123's) that could carry 1,000 gallons of herbicide and deposit 3 gallons per acre in swaths 240 feet wide for defoliation and crop destruction

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7 *Id.* at 1-2.

8 Brown, J. W., *Vegetational Spray Tests in South Vietnam*, U.S. Army Chemical Corps Biological Laboratories, Ft. Detrick, MD, 119 p., Available from Defense Documentation Center, Alexandria, VA, DDC Number AD 476961 (1962) (emphasis added) [hereinafter Brown].

9 USAF Herbicide Orange Report, *supra* note 6, at 1-3.

missions.[10] Herbicide Orange was a 50:50 mixture of 2,4-D and 2,4,5-T. The component 2,4,5-T was later found to contain a contaminant, TCDD (2,3,7,8-tetracholoro dibenzo para-dioxin) [dioxin] which is one of the most toxic chemicals known.[11] [See Table I, appended].

Military herbicide operations were carried out from 1962 to 1971. They were used primarily for (1) defoliation of trees and plants to improve observation and prevent ambush of friendly forces and (2) for destroying food crops of hostile forces.[12] After a relatively slow buildup from 1962 to 1965, herbicide operations increased rapidly to a peak in 1967; then declined slightly in 1968 and 1969 and dropped sharply in 1970 to eventually stop in 1971.[13] Defense estimates that approximately 17.7 million gallons of herbicides were sprayed during the nine-year period: 10.65 million gallons of Orange, 5.63 million gallons of White, 1.14 million gallons of Blue, 145,000 gallons of Purple and 130,000 gallons of Pink and Green. The Na-

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10 CONGRESSIONAL RESEARCH SERVICE: *Agent Orange: Veterans' Complaints Concerning Exposure to Herbicides in South Vietnam, Issue Brief Number IB79255*, Library of Congress, (Oct. 19, 1979), [hereinafter CONGRESSIONAL RESEARCH], at p.CRS-4.

11 General Accounting Office, *Report by the Comptroller General: Health Effects of Exposure to Herbicide Orange in South Vietnam Should be Resolved, GAO CED-79-22 at 2 (April 6, 1979) [hereinafter GAO REQUEST, 1979] at p.2: See also* J. McCullough, *Herbicides: Environmental Health Effects; Vietnam and the Geneva Protocol: Developments During 1970*, 7 (1970) (Congressional Research Report No. UG 447, 70-303SP) [hereinafter McCullough]. A portion of this report is reproduced at Table 1, *infra*.

12 Asst. Sec. of State Dixon Donnelly, quoted in Galston, *Herbicides in Vietnam*, NEW REPUBLIC, Nov. 25, 1967, at 19-21 (1967). Also see testimony of Rear Admiral William E. Lemos USN, in *House Committee on Foreign Affairs, Chemical Biological Warfare: U.S. Policies and International Effects. Hearings before the Subcommittee on National Security Policy and Scientific Developments*, (Washington, U.S. Govt. Print. Off., 1970) p.231 (91st Cong., 1st Sess.) Nov. 18, 20; Dec. 2, 9, 18 and 19, 1969) [hereinafter *U.S. Congress, Foreign Affairs, Chemical Biological Warfare, 1970*].

13 GAO REQUEST 1979, *supra* note 11, at 29.

tional Academy of Sciences estimated that of the 3.6 million acres sprayed, 66 percent was sprayed once, 22 percent was sprayed twice, 8 percent was sprayed three or more times, and 4 percent was sprayed four or more times.[14] Herbicide Orange was sprayed undiluted in Vietnam at the rate of about 3 gallons (containing 12 pounds of 2,4-D and 13.8 pounds of 2,4,5-T) per acre.[15] Civilian applications of this herbicide's components are usually diluted in oil and water. According to industry officials, the civilian application rate of 2,4,5-T varies from 1 to 4 pounds per acre.[16] A defense official stated that the heavier applications were necessary to assure success of the herbicide operations. They further advised that because of the dense jungle canopy, the amount of herbicide penetrating to the forest floor (six percent of that applied)[17] would have been similar to those normally applied to brush-infested ranch land in the United States.[18]

When one converts the millions of gallons sprayed, *supra*, to pounds of herbicide, the 44 million pounds of 2,4,5-T contained an estimated 368 pounds of the toxic contaminant

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14 *Id.* at 2.

15 Since Herbicide Orange is a 50:50 mixture of 2,4-D and 2,4,5-T, an average TCDD contaminant level of two parts per million (ppm) would indicate that the 2,4,5-T component, as manufactured, contained TCDD levels averaging about 4 ppm. GAO Request 1979, *supra* note 11 at 2, 3 n.1.

16 GAO Request 1979 *supra* note 11 and Young *supra* note 6, at 1-2 through 1-15.

17 House Comm. on Veterans' Affairs, 95th Cong. 2d Sess., *Herbicide "Agent Orange", Hearings before the Subcommittee on Medical Facilities and Benefits.* (Oct. 11, 1978) [hereinafter *Veterans' Hearings*], (Statement of Maj. Gen. Garth Dettinger USAF, Deputy Surgeon General USAF, *id.* at 12); *see also* USAF Herbicide Orange Report, *supra* note 6, at 1-20; and Tschirley, *Response of Tropical and Subtropical Woody Plants to Chemical Treatments,* Research Report CR-13-67, Agr. Res. Services, USDA, Wash., D.C. (1968) [hereinafter Tschirley].

18 GAO Request 1979, *supra* note 11 at 2., and *Veterans' Hearings supra* note 17, at 12.

TCDD or dioxin. (NAS estimated that between 220-368 pounds of TCDD were released over South Vietnam during the period August 1965 to February 1971).[19] Ninety-six percent of all 2,4,5-T was in Herbicide Orange; the remaining four percent was in Green, Pink and Purple (which contained approximately 40 percent [143 pounds] of the estimated TCDD disseminated throughout South Vietnam). Green, Pink and Purple were sprayed as defoliants on less than 90,000 acres from 1962 through 1964, when only a small force of U.S. military personnel were in South Vietnam. Ninety percent of all of the Herbicide Orange (containing 38.3 million pounds of 2,3,4-T and 203 pounds of TCDD) was used in defoliation operations on 2.9 million acres of inland forests and mangrove forest.[20] [This incongruity of amounts sprayed varying inversely to the numbers of personnel serving in South Vietnam, complicates the analysis of what the actual exposure to U.S. forces might have been, i.e. when the more toxic Agents Green, Pink and Purple were being used (1962-1964), there were only relatively small numbers of service personnel in South Vietnam and, as the later (and relatively less toxic) Agent Orange was being sprayed from 1965 through 1971, its more extensive use was concomitant to the massive buildup of American forces to 2.6 million service personnel].[21] A high Veterans Administration (VA) official has indicated that during the period 1962 through 1971 it was "theoretically possible that about 4.2 million American soldiers could have made transient or significant contact with the herbicides because of this operation (Ranch Hand—the code name assigned by the Air Force to the herbicide spraying missions)".[22]

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19 USAF Herbicide Orange Report, *supra* note 6 at 1-26, and Committee on the Effects of Herbicides in South Vietnam, Nat'l Academy of Science, Part A. Summary and Conclusions at 398 (1974).

20 USAF Herbicide Orange Report, *supra* note 6, at 1-26.

21 GAO Request 1979, *supra* note 11, at 6.

22 *Hearings, supra* note 17, at 27 (Testimony of Dr. Paul Haber, Asst. Chief Medical Director for Professional Services, Veterans Administration, Washington, D.C.).

III. Termination of Herbicide Use in Vietnam

The decision leading to the termination on April 15, 1970 of all military herbicide use was caused by a fascinating interplay of diverse elements of our political fabric—scientific, regulatory, diplomatic and legislative. These included the National Academy of Sciences (NAS), the National Cancer Institute (NCI), the National Institute of Health (NIH), the American Association for the Advancement of Science (AAAS), a spate of independent scientists, a host of executive departments and agencies, the departments of Defense, Agriculture, Interior and HEW, the Air Force, the Surgeon General, the State Department, the Office of the President, and the Congress itself.

One of the first distinguished scholars to voice concern for the continued use of herbicides containing the toxic substance dioxin was Yale botanist Arthur W. Galston, at the time President-elect of the Botanical Society of America. In his 1967 article in the *New Republic*, Professor Galston voiced a warning of the potential hazards of continued unbridled use of herbicides that was all too prophetic: "we are too ignorant of the interplay of forces in ecological problems to know how far-reaching and how lasting will be the changes in ecology brought about by the widespread spraying of herbicides in Vietnam. These changes may include immediate harm to people in sprayed areas. . . ."[23]

The Department of Defense (DOD) was not unmindful of the growing criticism within the scientific community on the department's use of herbicides in Vietnam. Each year the justification for continuation of Operation Ranch Hand was reviewed. In 1967, DOD contracted with Midwest Research Institute (MRI) of Kansas City, Missouri, for an in-depth

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23 Galston, Arthur W., *Herbicides in Vietnam*, New Republic, 19-21 (Nov. 25, 1967), *see also* Galston, *Plants, People and Politics*, BioScience, Vol. 20, p. 408 (April 1, 1970) and Galston, *Herbicides: No Margin of Safety*, in Science, Vol. 167, p. 237 (Jan. 16, 1970).

assessment of the ecological effects of extensive or repeated use of herbicides. MRI concluded that the greatest short-term or long-term ecological consequence (in South Vietnam) was the "destruction of the vegetation . . .", the long-term effects on wildlife were unpredictable (some good, some bad), "the herbicides used (in South Vietnam) . . . will not persist in the soil for a long period of time . . ." and, finally, ". . . the *possibility of lethal toxicity to humans . . . is highly unlikely and should not be a matter of deep concern . . . .*"[24] Both NAS and AAAS reviewed the report following its publication in December of 1967 and felt that although it was a creditable review of the available scientific literature relating to herbicides and their ecological effects, it was only a first step in such an investigation.[25]

In September 1968, the U.S. Department of State released an assessment of the ecological consequences of the defoliation program in South Vietnam. Tschirley, a plant ecologist, visited South Vietnam for one month and later published the results of his observations in *Science* (the Journal of the AAAS). Major conclusions reached by Tschirley included: "The defoliation has caused ecologic change, not irreversible, but recovery will take a long time . . . The effect on animals is not known, but it does not appear to have been extreme . . . There is no evidence to suggest that the herbicide used in Vietnam will cause toxicity for man or animals. . . ."[26] In order to supplement Tschirley's report, the Society for Social Responsibility in Science sponsored a visit by two zoologists in March 1969. Orians and Pfeiffer published their report in 1970. In contrast to the prior reports, they reported the

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24 House, W.B. *et al., Assessment of Ecological Effects of Extensive or Repeated Use of Herbicides,* Midwest Research Institute (Kansas City, Missouri). Sponsored by DOD: ARPA Order 1086, Final MRI Report No. 3103-B, 369 p.(1967) (emphasis added), quoted at length in *USAF Herbicide Orange Report, supra* note 6, at V-13.

25 Anonymous. *A Preliminary Assessment of Herbicides and Defoliation,* Environ. Sci. Technol., 2(3):176-181 (1968).

26 Tschirley, F.H., *Defoliation in Vietnam,* 163 Science, 779 (1969).

ecological consequences of defoliation were severe, especially in areas receiving repetitive applications of defoliants. Little evidence of toxic effects of herbicides to animals was found, although they did receive a report (by interview) of many sick and dying birds and mammals. This report was not investigated. No evidence was found that the herbicides had direct adverse effects on human health, although they did receive reports on the tremendous impact on remote mountain people.[27]

At this point, the Department of Agriculture (USDA) entered the scene, albeit involuntarily. In a February 1969 meeting of the National Academy of Science/National Research Council Committee, a copy of a "confidential" report prepared by the Bionetics Research Council Committee (BRC) (who had been employed by USDA to study the mutagenic, carcinogenic and teratogenic potential of a very large number [140] of commonly used pesticides) was shown to this influential committee. This study used highly susceptible test animals that were treated with massive doses of pesticides. Since the USDA had paid for the study, the report was made to them. In these studies, 2,4,5-T showed a "significant potential to increase birth defects."[28]

About four months after the NAS Committee had seen the BRC report (June or July 1969), the first reports of human birth defects allegedly attributed to Herbicide Orange appeared in Vietnamese newspapers between June 26 and July 5, 1969.[29] They blamed the increases on the chemicals used in defolia-

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27 Orians & Pfeiffer, *Ecological Effects of the War in Vietnam*, 168 SCIENCE 554 (1970).

28 Davis, *supra* note 1, at 92, and telephone interview of Nov. 1, 1979 by Bruce F. Meyers with Prof. Donald Davis (Auburn Univ., member of 1968-69 National Academy of Science/National Research Council Committee on Persistent Pesticides).

29 Advisory Committee on 2,4,5-T. Report of the Advisory Committee on 2,4,5-T to the Advisor of the Environmental Protection Agency of May 7, 1971 (unpublished), quoted in EPA RPAR on 2,4,5-T at 43 Fed. Reg. 17124, 17144 n.48 (1978) [hereinafter *Advisory Committee Report on 2,4,5-T*], and USAF HERBICIDE ORANGE REPORT *supra* note 6, at V-14.

tion. There is still no unanimity regarding interpretation of these findings. The number of recorded birth defects did significantly increase, however. Saigon is not in the area where most of the defoliation missions were flown, and similar increases in birth defects were not recorded in areas where defoliation was much more extensive.[30] [E.g., one could take note of the concomitant influx of American doctors and other medical personnel into the Saigon area, which might have had a positive impact on better record keeping, thus explaining to some degree the apparent increase.]

A sense of greater urgency was attached to the mounting national concern about 2,4,5-T when, in October 1969, Dr. Lee F. Dubridge, Science Advisor to the President, announced that there would be a partial curtailment of the use of this herbicide.[31] Following this announcement by the Office of the President, the Department of Defense restricted the use of Herbicide Orange to areas remote from population in South Vietnam. These actions were prompted by the National Institute of Health (NIH) report that 2,4,5-T could cause malformations and stillbirths in mice.[32]

In all probability, the "leaking" to the press of the USDA report (allegedly by a member of "Nader's Raiders", who "suggested" that USDA was trying to "hide" the adverse report) prompted the Surgeon General of the United States on April 15, 1970 to issue an opinion that the use of 2,4,5-T might be hazardous to "our health".[33] He was immediately strongly criticized by some for not acting sooner.[34]

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30 Davis, *supra* note 1, at 92.

31 McCullough, *supra* note 11, at 11.

32 GAO Request 1979, *supra* note 11, at 3.

33 Davis, *supra* note 1, at 93.

34 Whiteside, T., *The Pendulum and the Toxic Cloud: The Course of Dioxin Contamination*, Yale Univ. Press, New Haven, CT (1979) [hereinafter Whiteside], at p. 1.

On April 15, 1970 the Secretaries of Agriculture, HEW, and the Interior, jointly announced the suspension of certain uses of 2,4,5-T. These suspensions resulted from published studies indicating that 2,4,5-T was a teratogen.[35] On the same day, the Department of Defense suspended all use of Herbicide Orange, containing the 2,4,5-T.[36] The Dow Chemical Company, the primary manufacturer of 2,4,5-T and 2,4-D, predictably denied this teratogenicity, stating that according to their tests (with 2,4,5-T that had been produced in accordance with their production specifications) there was no indication of any fetal abnormalities.[37] However, the Dow tests did confirm the Bionetics Research Council (BRC) findings that, when dioxin was present in quantities exceeding (then-current) production specifications, birth defects did occur.[38]

IV. Congressional Actions Regarding 2,4,5-T and/or Dioxin

Congress was keenly aware of the growing storm against the military use of herbicides. Within the Senate, attempts to block further use of herbicides in Vietnam were initiated by a proposed amendment (No. 784) to the authorization of appro-

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35 The Secretaries' actions were taken because of evidence indicating "that 2,4,5-T, as well as its contaminant, dioxins, may produce abnormal development in unborn animals. Nearly pure 2,4,5-T was reported to cause birth defects when injected at high doses into experimental pregnant mice but not in rats. No data on humans are available." April 15, 1970 announcement of U.S. Department of Agriculture, U.S. Dept. of Interior, U.S. Dept. of Health, Education and Welfare, quoted in *Dow Chemical v. Ruckelshaus*, 477 F.2d 1317, 1319 (8th Cir. 1973), [hereinafter *Dow v. Ruckelshaus*]; *see also* Whiteside, *supra* note 34, at 2, and USAF Herbicide Orange Report *supra* note 6, at II-1.

36 *Id.* and USAF Herbicide Orange Report, *supra* at II-1 and, McCullough, *supra* note 11 at 20.

37 Flint, Jerry, *Dow Aides Deny Herbicide Risk*, in N.Y. Times, March 18, 1970, at 72.

38 McCullough, *supra* note 11, at 13.

priations for military procurement which prohibited the transfer of such weapons for use by second countries (presumably to prevent transfer to Vietnamese forces to permit them to do what the Congress was forbidding U.S. forces to do). The amendment also provided for the elimination of the present stockpile of antiplant chemical weapons (Agent Orange).[39] When this amendment was defeated by a voice vote of 62-22, another amendment (No. 863) was offered which proposed the prohibition of crop destruction in warfare.[40] This amendment was also defeated by a vote of 48-33.[41] The Senate was obviously attempting to balance the growing criticism of the use of herbicides against the "undisputable" saving of American lives.[42]

Both houses of Congress wanted more information on the possible toxicity of the herbicides in use. The House of Representatives was able to implement this desire by its appropriation action with respect to the military procurement bill for 1971. They directed the Secretary of Defense to arrange with the National Academy of Sciences (NAS) to conduct a study on the effects of herbicides in South Vietnam, including health effects.[43] A prior portion of the same section of the Act

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39 *U.S. Congress. Congressional Record* at S11524-33 (July 16, 1970) (authorization for military procurement and other purposes).

40 *U.S. Congress. Congressional Record* at S14240-58 (August 26, 1970).

41 Congressional Record at S14419 (August 27, 1970).

42 E.g. "For whatever the possible side effects of our herbicide program, its primary contribution is indisputable: it has saved the lives of Americans in Vietnam." *Id.*

43 Public Law No. 91-441, sec. 506(c), 84 Stat. 905, 91st Cong., 2d Sess. Oct. 7, 1970:

> "(c) (1) The Secretary of Defense shall undertake to enter into appropriate arrangements with the National Academy of Sciences to conduct a comprehensive study and investigation to determine (A) the ecological and physiological dangers inherent in the use of herbicides, and (B) the ecological and physiological effects by the defoliation program carried out by the Department of Defense in South Vietnam."

precluded expenditure of any funds for procurement of any "lethal chemical or any biological warfare agents . . ."[44] and in the event of any disposal of such elements that "such agents [be] detoxified or made harmless to man and his environment."[45]

V. Disposal of Herbicides from South Vietnam

In September 1971, the Department of Defense directed that the Herbicide Orange remaining in South Vietnam be returned to the United States and directed that the entire 2.22 million gallons (unexpended) be disposed of in an "environmentally safe and efficient manner." At the time of the DOD suspension of its use, there were 1.37 million gallons of Herbicide Orange in South Vietnam and 0.85 million gallons at the Naval Construction Battalion Center (NCBC) at Gulfport, Mississippi. The 1.37 million gallons were removed from South Vietnam in April 1972 to remote Johnston Island in the Pacific Ocean for storage pending disposal.[46] Various techniques of destruction and/or recovery of the herbicides used in South Vietnam were investigated between 1971 and 1974. Destructive techniques that were considered included soil biodegradation, high temperature incineration, deep-well injection, burial in underground nuclear test cavities, sludge burial and microbial reduction. Recovery techniques that were being examined (in order to possibly recover a useful product) included use, return to the manufacturers, fractionation and chlorinolysis.

Of the techniques considered, only high temperature incineration was sufficiently developed to warrant further investigation. The others were rejected for a number of reasons,

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44 *Id.* at 506(a).

45 *Id.* at 506(d).

46 The average concentration of TCDD in the Agent Orange awaiting disposal was 2 ppm and the total amount of TCDD in the entire stock was approximately 44.1 pounds. USAF Herbicide Orange Report, *supra* note 6, at II-1.

including inadequate assurance of success, long lead-times for development of efficient methods, and a complete lack of industrial interest.[47] Initially, the Air Force proposed to incinerate the remaining stocks at a commercial incineration site in Deer Park, Texas. The Texas Air Control Board was less than ecstatic about the prospect of spreading toxic contaminant byproducts over the Texas countryside.[48] In a like manner, the Mississippi Air and Pollution Control Commission in February 1972 formally requested that the Agent Orange (which was stored at NCBC at Gulfport) "be removed from its location immediately."[49]

Finally, in response to the persistent urging and the realization that many of the steel drums containing the Agent Orange were beginning to leak, the Air Force, in December 1974, filed a final Environmental Impact Statement (EIS) with the President's Council on Environmental Quality. They had made the decision to incinerate the remaining stocks aboard a specially designed Dutch incineration vessel, the "Vulcanis." This was to be done at sea, in a remote area west of Johnston Island.[50] EPA held public hearings in February 1975 in accordance with the Marine Protection, Research and Sanctuaries Act of 1972, as amended.[51] The EPA deferred approval at this time and

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47 *Id.* As to the last mentioned possibility, when the USAF asked the manufacturers to take the Agent Orange back (according to a subsequent statement made to the EPA by an Air Force official) this proposal "created what might be known as a wide wave of disinterest on the part of manufacturers," WHITESIDE, *supra* note 34, at 20.

48 "The area around the proposed site of incineration . . . is a highly industrialized area (that already) has relatively high concentrations of air pollutants. The addition of combustion products from the incineration of over two million gallons of Orange herbicide into the atmosphere of this area over a prolonged period could compound an existing problem and *might very well prove harmful.*" [emphasis added], quoted in WHITESIDE, *supra* note 34, at 20.

49 *Id.*

50 USAF HERBICIDE ORANGE REPORT, *supra* note 6, at II-2.

51 33 U.S.C. 1401 *et seq.* "(a) Unregulated dumping of material into ocean waters endangers human health . . . and the marine environ-

instead requested the Air Force to further explore reprocessing as a means of disposition prior to making a final decision to incinerate.[52] The reprocessing was actively pursued and in February 1977 the Air Force concluded that the reprocessing option was not feasible, timely or cost-effective because a technique for the ultimate disposal of the activated carbon by-product was not available or anticipated in the forseeable future.[53] In March 1977 the Air Force requested reconvening of the EPA public hearings. Following these hearings, the EPA ultimately issued a research permit to the Air Force and Ocean Combustion Services.[54]

In the destruction of Agent Orange stocks, the agent was drained from the drums at each of the sites (Johnston Island in the Pacific and Gulfport, Mississippi) and was transferred to the Vulcanis. The empty drums were rinsed with diesel fuel and crushed. The rinse was then combined with the Agent Orange for incineration at sea. The operation was finally completed in September 1977, 16 years after its first military use.[55]

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ment, ecological systems . . ." and (b) The Congress declares that it is the policy of the United States to regulate dumping . . . into ocean waters and to prevent or strictly limit dumping . . . any material which would adversely affect the human health . . . or the marine environment . . ."

52 Ocean dumping, receipt of application and tentative determination. U.S. Environmental Protection Agency. 40 *Federal Register* 13026-28, (1975).

53 USAF Herbicide Orange Report, *supra* note 6.

54 Marine Protection, Research and Sanctuaries Act (Ocean Dumping) Research Permit No. 77ODHOO1R, United States Environmental Protection Agency, Washington, D.C., 15 p. (1977), cited USAF Herbicide Orange Report, *supra* note 6, at II-19.

55 A total of 15,480 drums of Agent Orange were processed at the Mississippi site by approximately 110 USAF officers and technicians. A total of 24,795 drums were processed at Johnston Island by some 100 civilians hired by the contractor to perform the dedrumming process. At both sites, workers were provided with daily changes of work clothes and protective masks, hoods and clothes. The incineration was completed at sea during the period July to September 1977. Congressional Research, *supra* note 10, at CRS-7.

To ensure environmental safety, various monitoring and sampling programs were carried out in connection with the de-drumming and incineration. The results of these sampling programs revealed that the levels of 2,4-D and 2,4,5-T vapors were all below the Threshold Limit Value (TLV) for each of these materials.[56]

The congressionally directed studies to be done by NAS were conducted in South Vietnam during the period 1972-1973. The NAS committee spent about 1,500 man-days in South Vietnam during the course of the study. In a February 1974 report, NAS expressed concern over TCDD because of (1) its very high toxicity to animals, (2) its presence in Agent Orange, (3) preliminary reports of the presence of TCDD in fish in Vietnam, and (4) the lack of any data permitting assessment of TCDD effects on humans.[57] As a result, the Academy recommended that long-term studies be made to obtain a firmer basis for assessing the potential harmful effects on man.[58] The NAS committed could not gather any definitive indication of direct damage by herbicides to human health. The committee, however, was unable to visit the Montagnards in their own locals to

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56 The noted levels were at least two and in most cases three orders of magnitude below the TLV's. TCDD was not detected in any air samples. Biomonitoring using rapidly growing tomato plants was used to confirm dispersal and diffusion downwind of the dedrumming and incineration sites. No adverse environmental impact resulted from these operations. USAF Herbicide Orange Report, *supra* note 6, at II-8, II-10, II-15, II-18.

57 *Committee on the Effects of Herbicides in South Vietnam. 1974: Part A. Summary and Conclusions.* National Academy of Science, Washington, D.C., 398 [hereinafter *1974 NAS Study*], quoted in summary at USAF Herbicide Orange Report, *supra* note 6, at V-17, and in General Accounting Office Community and Economic Development Division, CED-78-158 (08766) dated August 16, 1978, letter to Rep. Ralph H. Metcalfe, House of Representatives [hereinafter *Metcalfe letter*] at p. 5 and Encl. III, at p. 7, General Accounting Office, Washington, D.C.

58 "Further intensive studies are especially required with reference to the ecological distribution, the pharmacology mechanism of toxicity, possible mutagenicity, and carcinogenicity in man," *Id.*

verify common and consistent reports of serious illness and death, especially among children, after exposure to herbicide sprays.[59]

With the increasing politicization of the herbicide issue worldwide, even within South Vietnam itself, the NAS committee attempted an assessment of the effects of the propagandistic activities on the attitudes of South Vietnamese towards the use of herbicides. They concluded that it had become a symbol among the urban intellectuals and was a lesser issue with the peasants.[60]

VI. Diplomatic Imprint of the Military Use of Herbicides

In concert with the mounting concern and criticism within both the scientific community and the Congress as to the continued military use of herbicides (particularly Agent Orange), foreign criticism also mounted. Allegations against the United States with regard to "chemical warfare" in Vietnam were discussed as possible violations of the Geneva Protocol of 1925.[61] [This Protocol was proposed at Geneva in 1925 by the United States as a ban on the use in war of

59 *Id.* at Encl. III at p. 7.

60 "Our findings indicate that there is a major dichotomy between the views of the rural population and those of the urban middle-sector regarding the use of herbicides in SVN. Contrary to what might be expected, the herbicide missions are much less an emotional issue among the peasants, who bore the brunt of the effects, than it is among the urban intellectuals for whom it has become a symbol." *1974 NAS Study, supra,* portion quoted in USAF Herbicide Orange Report, *supra* note 6, at V-30.

61 "Internationally, the United States has provoked mistrust and criticism. Countries of the world have spoken out against the United States' use of chemical warfare in Vietnam, declaring that it is immoral, inhuman, in violation of the provisions of the Geneva Protocal of 1925, and [is] contrary to customary international practice which has developed as a result of the Protocol." Goodell, *Targets for Further Disarmament,* Center for International Studies Policy Paper Series No. 2, CIS No. 4 at 6 (1969). *Quoted in McCullough, supra* note 11, at 29.

"asphyxiating, poisonous or other gases." It was first submitted to the Senate for ratification in 1926, but was never ratified].[62]

The United States' position has consistently been that the use of herbicides in war is not prohibited by the Geneva Protocol.[63] This was the position taken by Secretary of State Rogers and by President Nixon in their letter of [re]transmittal of the Protocol to the Senate in August 1970 for its advice and consent to ratification.[64]

Illustrative of the contrary view taken by many others in the international community, was the adoption of a Swedish resolution in the United Nations General Assembly in December 1969 (by a vote of 80 to 3) which: "stipulated that it was contrary to the 'generally recognized rules of international law', as embodied in the Geneva Protocol, to use in international conflicts 'any chemical agents of warfare' phrasing which was intended to cover tear gas and other non-lethal chemicals as well as herbicides."[65]

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62 Presidential Document: Ford, *Geneva Protocol of 1925 and the Biological Weapons Convention*, WEEKLY COMPILATION OF PRESIDENTIAL DOCUMENTS 73-74 (1975), Office of the Federal Register, National Archives and Records Service, GSA, Washington, D.C. 20408 [hereinafter *President Ford's remarks re Geneva Protocol*].

63 House Committee on Foreign Affairs. *Chemical-Biological Warfare: U.S. Policies and International Effects. Hearings before the Subcommittee on National Security Policy and Scientific Developments.* (Washington, U.S. Govt. Print Off., 1970) p. 231 (91st Cong., 1st Sess.) November 18, 20; December 2, 9, 18 and 19, 1969 [hereinafter *House Chemical Warfare Hearings*] at p. 224.

64 President Nixon's Letters of Transmittal on the Protocol for Prohibition of the Use in War of Asphyxiating, Poisonous, or Other Gases, and of Other Bacteriological Methods of Warfare, (to the Senate of the United States), August 19, 1970.

"It is the United States' understanding of the Protocol that it does not prohibit the use in war of riot-control agents and chemical herbicides. Smoke, flame and napalm are also not covered by the Protocol." Department of State, Letter of Submittal [Of the Geneva Protocol of 1925] to the President, (August 11, 1970).

65 House Committee of Foreign Affairs, *supra* note 63, at 24
[The United States, Australia and Portugal were the only nations voting against this resolution, although there were 36 abstentions].

There are many arguments and analyses on whether herbicides (antiplant compounds) were to be included within the scope of the Geneva Protocol. Most analyses of this issue center around the fact that herbicides had not been discovered in 1925 when the Protocol was written.[66]

Following the resubmission of the Geneva Protocol of 1925 to the Senate in August of 1970 by President Nixon, extensive congressional hearings were conducted in 1971, during which differing views developed. At this same time the executive branch (and in particular the Departments of State and Defense as well as Justice) undertook a thorough and comprehensive review of the military, legal and political issues relating to the Protocol. Following the passage of the presidential office to Gerald R. Ford, President Ford announced on January 22, 1975 a new policy to govern any future use in war of riot control agents and chemical herbicides.[67] On that date President Ford signed the instruments of ratification of the Geneva Protocol of 1925 and the Biological Weapons Convention, to which the Senate had given its advice and consent on December 16, 1974.[68] The new policy was a renunciation of: "the first-use of herbicides in war except use, under regulations, applicable to their domestic use, for control of vegetation within U.S. bases and installations or around their immediate defensive perimeters."

This was set forth as an Executive Order,[69] which in addition, reaffirmed United States Policy (established in 1971), that

66 See for example: A.G. Thomas, Ann Van Wynen *et al.*, Legal Limits on the Use Of Chemical and Biological Weapons. (1970); and Goldblat, *Are Tear Gas and Herbicides Permitted Weapons?*, Bulletin of the Atomic Scientists, April 1970, at 13-16.

67 *Supra* note 62, at p. 74.

68 *Id.* and for Senate advice and consent, see: 120 Congressional Record 39579-41020 (December 16, 1974) (The Geneva Protocol of 1925).

69 Executive Order 11850. Renunciation of Certain Uses in War of Chemical Herbicides and Riot Control Agents, April 8, 1975, *Presidential Documents: Gerald R. Ford, 1975*. Weekly Comp of Pres. Doc., Vol. II-1. Office of the Federal Register, National Archives and Record Service, GSA, Washington, D.C. at p. 350.

"any use in war of chemical herbicides and riot control agents must be approved by me [the President] in advance."[70]

From this review of the United States foreign policy with respect to the use of herbicides for military operations, one can see what some might characterize as a "responsive adjustment" as the body of scientific evidence grew on the possible toxic effects of our military herbicides (specifically 2,4,5-T and dioxin). During this same time similar reassessments were going on with respect to its domestic and civilian uses.

VII. Civilian Usage and Eventual Curtailment

As discussed *supra*, the civilian usage and eventual curtailment of 2,4,5-T is beyond the full scope of this article. An overview, however, to show the similarities in resistance to curtailment is necessary in order to place the Agent Orange problems in appropriate perspective.

The herbicide 2,4,5-T has been produced as a "registered pesticide" in the United States since 1948. EPA records show approximately 122 companies hold Federal registrations and formulate 424 registered products;[71] eleven additional companies have former state registration[72] and formulate 21 products. To provide some insight as to the magnitude of the civilian usage within the United States, the Department of Agriculture's official *Pesticide Review* reported that 11.6 million pounds of 2,4,5-T acids, esters and salts were produced in the United States in 1969 and 12.3 million pounds in 1970. During the period 1971-1974 some 0.7 million pounds were imported.[73] Principal domestic use in 1974, as an example of the panoply of types of utilization, was as follows: (1) weed control on rights-of-way: 4 million pounds; (2) range land and

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70 Ford, *supra* note 62, at 74.

71 U.S. Environmental Protectin Agency, *supra* note 29, 17118.

72 *Id.* at 17118 n.3. *See* 40 C.F.R. 162.17(a).

73 U.S. Department of Agriculture, Agricultural Stabilization and Conservation Service. 1976. The *Pesticide Review* 1975, quoted in U.S. Environmental Protection Agency, *supra* note 29.

pastures: 1.5 to 2.3 million pounds; (3) rice crops: 220,000 pounds; and (4) forestry: 50,000 pounds.[74]

Since 1950 most of the chemical industry has known that large quantities of TCDD may be formed as a byproduct of the 2,4,5-T manufacturing process if the manufacturing procedures were not carefully controlled. At one time, 2,4,5-T was produced which contained between 30-40 ppm of TCDD. Between 1968 and 1969, one manufacturer had a 90 percent decrease in TCDD present in the 2,4,5-T that it produced. After concern arose in 1969 about the extremely toxic effects of TCDD, manufacturing methods were changed and carefully controlled. By 1971 industry had reduced TCDD content in commercial samples to less than 1 ppm. Current U.S. manufacturing specifications require 2,4,5-T presently being sold to contain less than 0.1 ppm. Several foreign countries now produce commercial 2,4,5-T containing less than 0.05 ppm of TCDD.[75]

Herbicide 2,4,5-T has been the subject of a number of Federal regulatory actions following its first registration in March 1948. Initially, regulation of 2,4,5-T came under the aegis of the United States Department of Agriculture (USDA). Subsequently this function was transferred to EPA. On April 13, 1966 USDA and the Food and Drug Administration (FDA) jointly announced in the *Federal Register* the abolishment of the "no residue and zero tolerance" concepts [of drug and chemical registration] as scientifically unattainable. Future registrations were to be granted on the basis of either "Negligible Residue" or "Permissible Residue." Industry was given until December 31, 1967 to comply by obtaining tolerances for residues of 2,4,5-T in all treated food, feed products and

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74 *Id.* at 17119.

75 *Id.* The average TCDD levels in Agent Orange used in South Vietnam was 2 ppm (96% of all herbicide used was Agent Orange) and approximately 32.8 ppm of Agent Purple and 65.6 ppm in Agents Pink and Green (comprising the remaining 4% of herbicides used), CONGRESSIONAL RESEARCH, *supra* note 10, at CRS-2.

byproducts.[76] Following this announcement, a series of Pesticide Registration (PR) notices were issued over the next several years, extending certain "no residue" and "zero tolerance" registrations for the uses of 2,4,5-T on pasture grasses and rangeland, apples, blueberries, cereal grains, rice, sugarcane, and in lakes and ponds.[77] Subsequent PR Notices identified 2,4,5-T compounds as requiring further teratogenic studies.[78] PR's 70-11 and 70-13, issued in April and May of 1970, however, suspended 2,4,5-T products from certain uses (e.g. on lakes, ponds or ditch banks and around home and recreation sites),[79] but PR 70-13 issued on May 1, 1970 *cancelled* (among other uses) *all 2,4,5-T uses on food crops intended for human consumption.*[80]

With these last PR cancellations of registration for 2,4,5-T food crop use, two of the registrants (who were two of the largest manufacturers of 2,4,5-T in the United States) Dow Chemical and Hercules Incorporated, exercised their rights under section 4(e) of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA)[81] by petitioning for referral of the cancellation to an Advisory Committee of scientists to review all relevant facts.[82] The Advisory Committee met and submit-

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76 U.S. Environmental Protection Agency, *supra* note 29, at 17124.

77 *Id.*

78 An agent or chemical is considered teratogenic when it causes development disturbances in the embryo resulting in congenital malformation. *GAO Request* 1979, *supra* note 11, at 20., USDA. 1970. PR Notice 70-8. Looseleaf pub. 1, p.

79 USDA. 1970. PR Notice 70-10. Looseleaf pub. 2 pp.

80 USDA. 1970. PR Notice 70-13. Looseleaf pub. 2 pp (emphasis added).

81 7 USC § 135 *et seq.* [hereinafter *FIFRA*].

82 Sec. 4(c) of FIFRA (1964 amendment) provides for a nine-member committee of scientists to consider all relevant facts, submit a report and recommendations regarding registration (or continuation). (Explained in *EPA supra* note 29, at 17124).

ted their report to the Administrator of EPA in May 1971, recommending:

> permitted use of 2,4,5-T in forestry, range land and rights-of-way providing that the limit of 0.1 ppm contamination with TCDD be set for all future production of 2,4,5-T; that all 2,4,5-T be applied no more than once a year at any one site; and that 2,4,5-T be applied with proper caution so that it will not contaminate other areas where it may come into contact with humans.[83]

Shortly thereafter, USDA published PR Notice 70-22 on September 28, 1970 advising of the presence of chlorodioxin contaminants (such as TCDD) in economic poisons (including herbicides and pesticides). It stated further, that such contaminants in 2,4,5-T constituted a possible hazard to man since they had been found to be extremely toxic to laboratory animals. This PR advised that appropriate regulatory action would be taken under FIFRA since products containing chlorodioxins were considered to be "in violation of FIFRA."[84] Dow moved to protect one of its major markets—rice. They filed for injunctive relief in the District Court in Arkansas (an area heavily involved in rice crop production). They obtained injunctive relief against EPA in the United States District Court in Arkansas in July 1972, enjoining further administrative action against 2,4,5-T. The United States Court of Appeals for the Eighth Circuit overturned this injunction in April 1973,[85] and EPA proceeded with formal cancellation hearings to remove the herbicide from the market. [Dow was not the complete loser in this action: they were successful in gaining nearly two years of delay in the suspension of their appeal].

Extensive public hearings were held during 1974 on all uses of 2,4,5-T including insecticides as well as herbicides contain-

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83 *Id.* at 17124, 17144 n.48.

84 USDA. 1970. PR Notice 70-22. Looseleaf pub. 1 p., and see *EPA RPAR on 2,4,5,-T, supra* note 29, at 17124.

85 Dow Chemical Co. v. Ruckelshaus, 477 F.2d 1317, 1320 (8th Cir. 1973).

ing 2,4,5-T. In June 1974, EPA decided that it would "continue its TCDD residue monitoring" since it didn't have sufficient hard evidence that was needed to rebut the herbicide manufacturers and users (farms groups), and [to the shock of environmental groups] withdrew the proceedings.[86] Although the 2,4,5-T Notice of Hearing was withdrawn, EPA advised that it would continue its TCDD residue monitoring and that it will take such further action as it deems appropriate once the results of the monitoring projects were available.[87] EPA continued its review of 2,4,5-T in a series of studies and conferences. They established a Dioxin Implementation Plan (DIP) which was intended to identify the preferable, analytical methodology for the monitoring of human and environmental samples for TCDD.[88]

During this time (1974-1979) the results of several TCDD "incidents" began to develop and corroborate, in an ominous manner, the dangerous toxicity to humans and animals of TCDD. In August 1972, in a horse arena in Eastern Missouri, 57 horses died shortly after exposure to arena turf that had been oil-treated. The cause of death was an illness characterized by skin lesions, severe weight loss and heptotoxicity. Birds, dogs, cats, insects and rodents were also found dead in and

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86 *EPA, supra* note 29, at 17124. (EPA Administrator for Toxic Substances, Steven Jellinek explained: "While laboratory studies have demonstrated that even such minute quantities of dioxin [as those present in the environment] could produce oncogenic, teratogenic and other reproductive effects in animals . . . the exposure link between the use of 2,4,5-T and these effects in human beings could not be demonstrated. The inability to generate reliable data relating to 2,4,5-T use to a measurable presence of dioxin made it difficult to determine whether the risks associated with the compounds' use were unreasonable, and EPA therefore withdrew the proceedings." June 1979 *Congressional Hearings before House Commerce Committee, Subcommittee on Oversight and Investigations*, quoted in *Human Disease Linked to Dioxin: Congress Calls for 2,4,5-T Ban After Dramatic Herbicide Hearings*, BioScience Vol. 28, No. 8, August 1979, at 454 [hereinafter *Dioxin Linked*].

87 39 C.F.R. 24050. (June 28, 1974).

88 EPA *supra* note 29, at 17124.

around the arena. One six-year old girl exposed developed epistaxis, gastrointestinal complaints, and severe hemorrhagic systitis (characterized by blood in the urine). Subsequent studies and investigations determined that the arena had been treated with surplus oil sludge that had been contaminated with TCDD (31-33.8 ppm).[89]

89 USAF HERBICIDE ORANGE REPORT, *supra* note 6, at V-17, V-18; *EPA*, *supra* note 29, at 17123.

APPENDIX C

APPENDIX C

Plaintiff's Amended Verified Complaint Dated June 29, 1979 MDL 381 Document No. 0014, pp. 35-46, ¶¶ 79-117.

2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin")

79. The polychlorinated dibenzo-*p*-dioxins (PCDDs) and the polychlorinated dibenzo furans (PCDFs) are two series of tricyclic aromatic chemical compounds which exhibit similar chemical and physical properties. Each of the series of compounds have eight possible points of chemical addition, and from the monochloro to the octachloro derivatives it is possible to obtain 75 positional isomers among the PCDDs and 135 positional isomers among the PCDFs. Upon information and belief, the first chlorinated dioxin, the octachlorinated compound, was prepared as early as 1872 by two German chemists, Merz and Weith, although the structure of the compound they prepared was not clearly described until 1957. . . .* during the 1930s, a Japanese group started synthesizing chlorinated dioxins, but they did not prepare TCDD.

80. . . . in 1957, Gilman and Dietrich reported that they had prepared tetrabromodioxin, and in the same year, Sanderman, Stockmann and Casten reported the first synthesis of TCDD. Both of the toxic tetrahalodioxins were prepared in quantities of approximately 20 grams by halogenation of the unsubstituted dioxin, and in both cases, the laboratory worker was hospitalized.

81. . . . the industrial preparation of 2,4,5-trichlorophenol starts with 1,2,4,5-tetrachlorobenzene, which, under basic conditions is hydrolyzed to 2,4,5-trichlorophenate at about 180°

* All allegations were made "upon information and belief" at the time the complaint was filed. Plaintiffs have since offered to prove the substantial truth of these allegations by a fair preponderance of the substantial credible scientific evidence and in this appendix the phrase "upon information and belief" has been omitted.

C. In the case where the solvent is methanol, the pressure rises and the formation of 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin") is an unwanted side reaction which takes place when the reaction mixture is heated to 230-260° C, at which point the reaction is exothermic and even higher temperatures may be attained resulting in loss of reaction control. . . . in some processes the solvent has been changed from methanol to ethylene glycol so as to avoid the high pressure, however this reaction runs the risk of base-promoted dimerization of ethylene glycol to di-, tri-, and higher ethylene glycols and of exothermic decomposition reactions producing ethylene oxide which may occur spontaneously above 180° C and proceed rapidly and uncontrollably to form 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "dioxin"). . . . the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin") can also occur during pyrolysis of 2,4,5- trichlorophenol and 2,4,5-trichlorophenoxy acids.

82. . . . polychlorinated dibenzo-*p*-dioxins (PCDDs) and polychlorinated dibenzo furans (PCDFs) have been identified in fly ash and flue gas from municipal incinerators, and in dust from wood treated with certain chlorophenol pesticides.

83. . . . human exposure to 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin") has occurred when polychlorinated dibenzo-*p*-dioxins (PCDDs) are formed during the production of certain compounds such as the herbicide 2,4,5-trichlorophenoxacetic acid (2,4,5-T), the fungicide pentachlorophenol, and the germidice hexachlorophene. The dioxins which occur as impurities and/or contaminants associated with these commercial products, result most often from treatment of chlorinated benzenes at elevated temperature and pressure under alkaline conditions.

84. . . . 2,4,5-T produced prior to 1965 was contaminated with 30 mg/kg [ppm] or more of the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin"). However, techniques are and have been available for producing 2,4,5-T with a TCDD or "Dioxin" content below 0.02 mg/kg. [ppm]

85. . . . the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin") is a nonpolar,

chlorinated aromatic molecule relatively immobile and not photodecomposed in soil; not biosynthesized by microbial condensation reactions; and not readily metabolized by soil microorganisms. . . . volatilization of the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin") is one of the pathways of dissipation from soil and other sites of application. However, . . . statements on the fate of the 2,3,7,8 TCDD or "Dioxin" in the environment have been and are now predicated upon the detection of the compound in environmental substrates, and . . . prior to 1973 the detection limit for 2,3,7,8 TCDD or "Dioxin" in soils was 100 parts per trillion [0.0001 parts per million]; and in biological tissue was 50 parts per billion (0.05 parts per million).

85. . . . the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin") is capable of bioaccumulation (being taken up by a living organism and retained), and can enter the human body from several contaminated elements of a food chain, including water.

86. . . . one of the most extensively studied isomers of the polychlorinated dibenzo-*p*-dioxins (PCDDs) and the structurally related polychlorinated dibenzo furans (PCDFs, contaminants found in some polychlorinated biphenyl compounds such as Aroclor, Clophen, Phenoclor) is 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin").

87. . . . the synthetic organic chemical 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin") is one of the most potent low molecular weight toxins and teratogens known.

88. . . . the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin") is a "cellular poison".

89. . . . the pathologic effects produced by the toxic isomers of polychlorinated dibenzo-*p*-dioxins (PCDDs) and polychlorinated dibenzo furans (PCDFs) vary quantitatively and qualitatively among different species; however, within a single species the toxic effects of these compounds are similar, differing only in the intensity of the toxic effect produced by a given isomer.

90. . . . the toxic polychlorinated dibenzo-*p*-dioxins (PCDDs) and, to the extent that toxicity has been determined,

the toxic polychlorinated dibenzo furans (PCDFs), have chlorine atoms in at least three of the four lateral ring positions (2, 3, 7, 8) and with at least one unsubstituted ring position.

91. . . . chloracne or acneform dermatitis characterized by comedones, keratic cysts, pustules, papules, and abscesses, is a condition often associated with and characteristic of human exposure to polychlorinated dibenzo-*p*-dioxins (PCDDs) and squamous metaplasia and keratinization of the sebaceous glands and hair follicles have been observed in the skin of a number of animal species following exposure to 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin").

92. . . . clinical symptoms of chloracne may appear weeks or months after the initial exposure to polychlorinated dibenzo-*p*-dioxins (PCDDs) or polychlorinated dibenzo furans (PCDFs).

93. . . . in 1957, 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin") was identified as the agent responsible for causing occupational chloracne in employees at factories producing chlorophenol.

94. . . . in 1971 polychlorinated dibenzo-*p*-dioxins (PCDDs) were implicated as the cause of chloracne in a plant producing 2,4-D and 2,4,5-T.

95. . . . a condition characterized by hydropericardium, ascites, subcutaneous edema, liver necrosis and death was described following accidental administration of toxic fats in the feed of broiler chickens. The toxic material occurred as a contaminant of commercial oleic and stearic acids produced from inedible tallow recovered from animal hides upon which trichlorophenols and pentachlorophenols had been used in the curing process. The edema causative was named "toxic fat" and more specifically "chick edema factor" until it was finally identified by X-ray crystallography as 2,3,4,7,8,9-hexachloro dibenzo *p*-dioxin. 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin"), 2,3,7,8-hexachloro dibenzo *p*-dioxin, and 2,3,7,8-octachloro dibenzo *p*-dioxin also have been identified in several commercial fatty acids.

96. . . . 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin") is metabolically stable in mammalian systems, and

acts upon the endoplasmic reticulum. . . . among the effects associated with exposure to 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin") is an increase in the cellular smooth endoplasmic reticulum contents of hepatic and renal cells.

97. . . . 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin") and other halogenated dibenzo-*p*-dioxins and dibenzo furans stimulate a number of enzyme systems.

98. . . . 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin") is a potent inducer of hepatic and renal microsomal enzymes and, upon information and belief, can affect certain microsome-associated enzyme systems responsible for metabolizing foreign compounds and steroid hormones as well as increase the activity of both renal and hepatic glutathione-S transferase, an enzyme that converts several organic compounds to metabolites that are transported by the proximal tubules of the kidney.

99. . . . 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin") induces δ-aminolevulinic acid synthetase (ALAS) the initial and rate-limiting enzyme in heme synthesis and the enzyme aryl hydrocarbon hydroxylase (AHH) a cytochrome mediated monooxygenase.

100. . . . the ability of various halogenated dibenzo *p*-dioxin congeners, including 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin"), to induce ALAS and AHH correlates closely with their lethal, teratogenic, and acnegenic potency.

101. . . . mixed function oxidase enzyme systems (membrane-bound enzyme complexes which catalyze the oxidative, and for certain substrates reductive, metabolism of certain xenobiotics and endogenous lipophilic compounds (so classified because of an absolute requirement for both NADPH and molecular oxygen) and generally 'non-responsive' to other aromatic hydrocarbons were induced by 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin").

102. . . . 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin") induces AHH even in 'poorly responsive' strains of mice, not only in liver but also in lung, kidney and colon, and

upon information and belief, genetic resistance to induction of AHH by 3-methylcholanthrene in certain animal species was overcome by treatment with 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin"). . . 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin") is more potent than 3-methylcholanthrene in inducing AHH activity in the liver of certain animal species.

103. . . . among the other toxic effects of the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin") identified in a number of different animal species are to be found:

> alopecia; . . . hepatic cell necrosis, cirrhosis; hepatic porphyrin accumulation; . . . hypoplasia of lymphoid tissues (with particular involvement of the cortical cells of the thymus resulting in suppression of cell-mediated immunity and reduction of host defenses); . . . hyperplasia of the lymph tissue and bone marrow; . . . hematological changes including lymphopenia, thrombocytopenia, anemia, pancytopenia, leukopenia, hypoproteinemia, and increased susceptibility to infection concomitant with the suppression of sell-mediated immunity; . . . intestinal hemorrhage; . . . adrenal hemorrhage . . . hypoplasia of bone marrow and lymph nodes; . . . cellular effects including hypertrophy, hyperplasia and metaplasia in the bronchial tree, bile ducts, pancreatic ducts, salivary-gland ducts and palperbral conjunctivae; gastric hyperplasia and rulceration, hypertrophic gastritis; renal pelvis hyperplasia; ureter and urinary bladder hyperplasia; . . . general debilitation and wasting is associated with exposure to a lethal dose of polychlorinated dibenzo-*p*-dioxins (PCDDS) or polychlorinated dibenzo furans (PCDFS) in a number of animal species which exhibit a chronic and progressive weight loss with parallel mobilization of peripheral fat, increased serum triglyceride levels, and development of a fatty liver . . . testicular atrophy, necrosis and abnormal spermatocyte development.

104. . . . the embryotoxic, fetotoxic and teratogenic effects of the toxic synthetic organic chemical 2,3,7,8-tetrachloro

dibenzo *p*-dioxin (TCDD or "Dioxin") observed in certain animal species include:

> cleft palate . . . hemorrhages; . . . edema; . . . fetal kidney abnormalties which may progress into hydronephrosis during the postnatal period; . . . hydrocephalus; . . . lack of eyelid formation (open eye); . . . clubfoot; . . . increased prenatal mortality; . . . interference with lymphatic system development; . . . skeletal abnormalties; . . . increased fetal enzyme activity.

105. . . . the mutagenic and cytogenic effects of the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin") include:

> increased incidence of reverse mutations in *Escherichia coli* and *Salmonella typhimurium;* . . . increased reversion frequency to streptomycin independence in *Escherichia coli* Sd-4; . . . induction of frameshift mutations in *Salmonella typhimurium,* strain TA1532, but not base substitutions in strain TA1530; . . . inhibition of mitosis and chromosomal abnormalities (dicentric bridges and chromatin fusion with formation of multimuclei or a single large nucleus) were observed in endosperm cells of the African blood lily (*Haemanthus Katherinae* Baker).

106. . . . the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin") may form a physical complex by "intercalation" in DNA.

107. . . . exposure to 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin") causes an increased incidence of neoplasms in certain animal species, and . . . the carcinogenic and tumorigenic effects of the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin") include:

> neoplastic nodules of the liver, cholangiocarcinomas, hepatocellular carcinoma; . . . carcinoma of the ear duct; . . . carcinoma of the kidney; . . . adenoma of the adrenal cortex; . . . metastacizizing retroperitoneal histiocytomas; . . . hyperplasia of the epithelium of the

lung, squamous cell carcinoma of the lung; . . . squamous cell carcinoma of the hard palate/nasal turbinates; . . . squamous cell carcinoma of the tongue; . . . altered lymphopoiesis; . . . epithelial changes including hypertrophy, hyperplasia, and mataplasia.

108. . . . the synergistic action of 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin") with polycyclic hydrocarbons such as 3-methylcholanthrene (MC) has induced cancer in different animal strains in direct proportion to the degree of elevation of the induced enzyme activity.

109. . . . there have been at least 23 industrial incidents involving over 1,100 human beings, generally adult males, in exposure to toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin"). However, there have been, as yet, no significant, scientific long term studies of the individuals so exposed, with the exception of a recent study of workers exposed at Nitro, West Virginia.

110. . . . in 1949, an accident occurred at the 2,4,5-T-producing factory of defendant MONSANTO CO. in Nitro, West Virginia, as a result of which approximately 228 people were affected. Symptoms included chloracne, melanosis, muscular aches and pains, fatigue, nervousness and intolerance to cold.

111. . . . an accident occurred at the 2,4,5-T producing factory of the Phillips Duphar Company in the Netherlands in 1963, as a result of which approximately 50 people were affected, some of whom still had skin complaints in 1976.

112. . . . an outbreak of chloracne affected workers at the 2,4,5-T factory of defendant THE DOW CHEMICAL COMPANY in Midland, Michigan in 1964.

113. . . . during 1964 among certain employees working in a 2,4-D and 2,4,5-T-producing factory of Diamond Alkali Co., a division or subsidiary of defendant DIAMOND SHAMROCK CORPORATION at Newark, New Jersey, and manifesting features of chloracne, a number of other symptoms were observed, including increased excretion of uroporphyrins and raised serum glutamic-oxaloacetic transaminase, hirsutism, hyperpigmentation, in-

creased skin fragility and vesicobullous eruptions on exposed areas of the skin.

114. . . . in 1969, after the level of TCDD in the 2,4,5-trichlorophenol had been reduced to less than one 1.0 mg/kg, [ppm] re-examination of the employees of the same factory of said defendant DIAMOND SHAMROCK CORPORATION still found evidence of chloracne, hyperpigmentation, facial hypertrichosis, gastrointestinal symptoms (including nausea, vomiting, diarrhea, abdominal pains, blood in the stools), lower rextremity weakness, headache and/or decreased auditory acuity, elevated serum cholesterol, elevated serum lactic dehydogenase, diminished white blood cell count. The severity of chloracne was associated with the degree of hypomania as measured on the Minnesota Multiphasic Personality Inventory hypomanic scale.

115. . . . as part of the solvent is distilled off during the industrial preparation of 2,4,5-trichlorophenol, the reaction mixture is acidified and the trichlorophenol can be freed from 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin") by distillation once or twice, with the result that the TCDD is concentrated in the residues. . . . in August 1972 waste oil contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin") was sprayed on a horse arena in eastern Missouri and 54 of 57 horses exposed to the arena died of an illness characterized by skin lesions, severe weight loss and hepatotoxicity.

116. . . . near the end of Saturday morning, 10 July 1976, at the ICMESA plant at Seveso, in the Lombardy Region of Italy north of Milan, a chemical reactor involved in the industrial preparation of 2,4,5-trichlorophenol exploded sending a plume of chemicals, including the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin") 30 to 50 meters above the factory. Upon information and belief, the vapor cooled and came down over a cone shaped area about 2 kilometers long and 700 meters wide, and according to the calculations of Givaudan ICMESA, a Swiss company which owned the plant, between 650 GRAMS and 1700 GRAMS of the toxic synthetic organic chemical 2,3,7,8-

tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin") were released. . . . the autoclave involved in the accident, served in the manufacture of trichlorophenol, a substance which is intermediate in the synthesis of hexachlorophene, a substance used as a disinfectant in the formulation of medicinal soaps and various cosmetic products.

117. . . . for the year prior to the heretofore described release of the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo *p*-dioxin (TCDD or "Dioxin"), only four (4) cases of congenital malformations were recorded for 3,902 births for a rate of malformations of 0.12% of live births in the region contaminated with said toxic synthetic organic chemicals; and, upon information and belief, those four (4) cases of congenital malformations included two (2) cases of Down's Syndrome (mongolism) and two (2) cases of hypospadias. But, upon information and belief, for the year after the release of TCDD, 38 malformations were reported in 2,774 births for a rate of malformations of 1.36% of live births in the region; and, upon information and belief, those 38 malformations included two (2) cases of Down's Syndrome and two (2) cases of hypospadias, together with 34 polymorphic malformations including meningocele (a congenital hernia in which the meninges, the membranes covering the brain and spinal cord, protrude through an opening of the skull or spinal column; pulmonary aplasia (failure of the lungs to properly develop); atresia of the ear (pathologic closing or congenital absence of the ear opening); cardiopathies; ectopic bladder; coelosomy; abdominal malformations; anal anomaly, and anomalies of skeletal members.